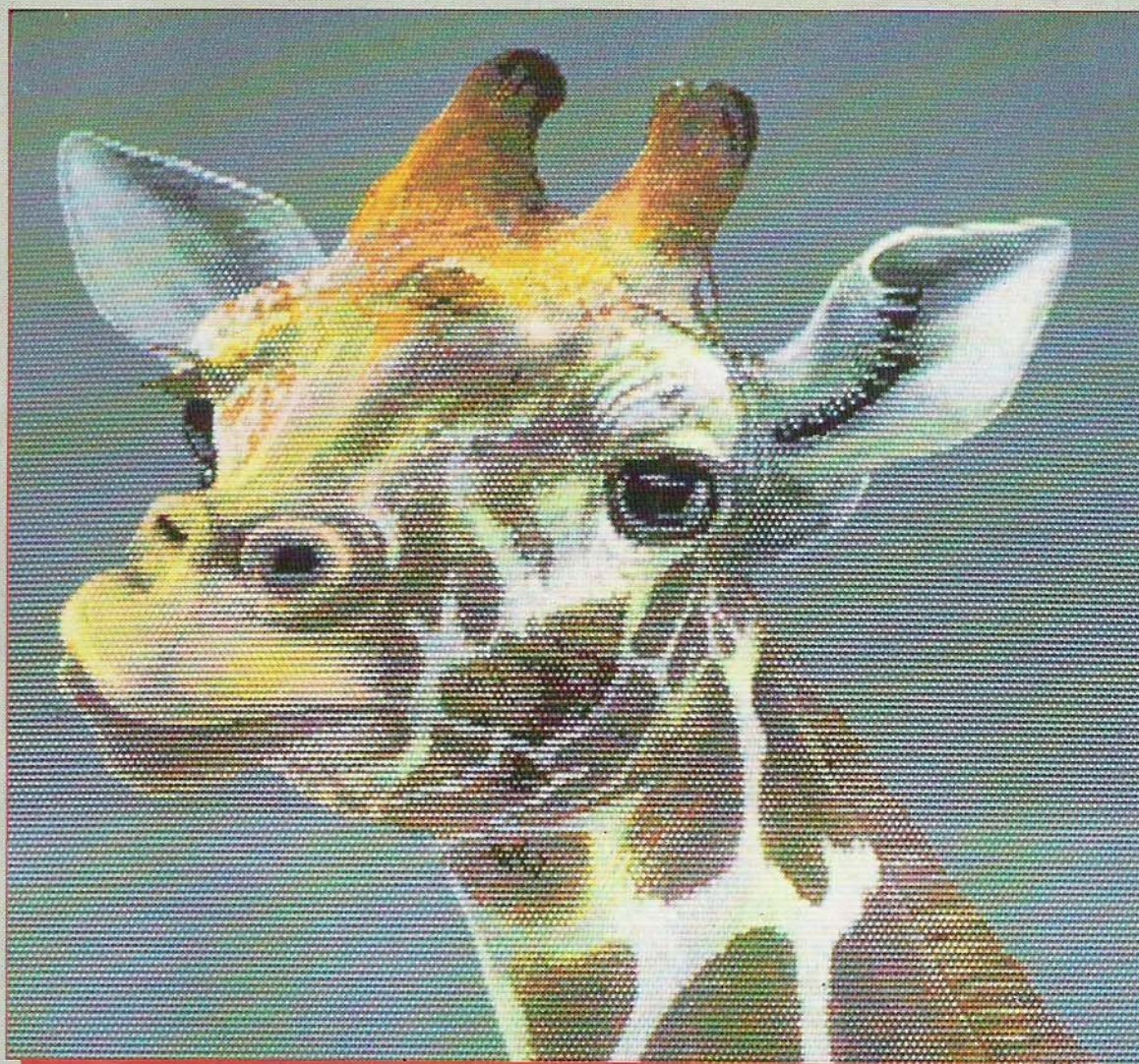


# The Australian **COMMODORE** and **AMIGA REVIEW**

## Wordprocessing Concepts



Using Workbench 1.3

GEO-Publish

Rounding Pt II

Star NX-24

Deluxe Print

Startup Sequences

14 Game  
Reviews



# At Last!

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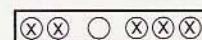


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# The Australian COMMODORE and Amiga Review

VOL. 6 NO. 2

February 1989

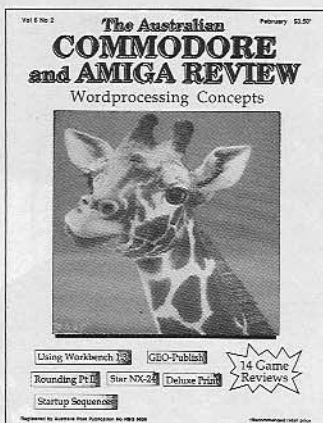
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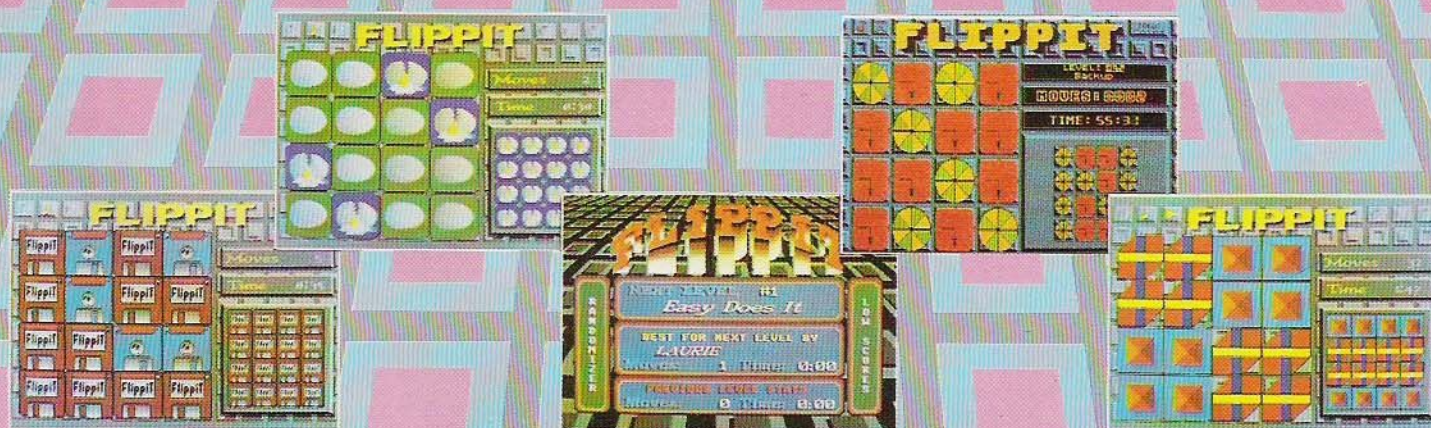
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# FLIPPIT

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## DeluxePaint II

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Designed for serious artists who want more colours, larger canvases, greater graphic-mode flexibility and powerful colour manipulation utilities. Perfect for enhancing digitised images, moving elements between graphic modes and printing giant posters. The perfect companion for DeluxePaint II. Supports all of the Amiga's graphics modes including Hold and Modify (for 4,096 colours) and Extra HalfBrite (for 64 colours). Painting size is restricted only by the amount of extended memory, allowing paintings as much as 20 times larger than a normal screen.

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# Editorial

Perusing the pages of a recent Zzap magazine, a letter from an Australian reader caught my attention. He was lamenting the continual barrage of violent computer games, and in more recent months, the rise in popularity of sexually explicit programs, text or otherwise.

The editor replied in cynical terms, although thankfully he concluded that the writer had raised a valid issue worthy of further discussion.

Indeed it is. Sydney's *Good Weekend* ran a story called The Jason Syndrome which recounted in detail the immediate and obvious effect the movie *Friday the 13th* had on some viewers. A series of murders, committed in the exact same style as several depicted in the movie, took place.

It is possible that continuously viewing movies depicting violent scenes could affect the viewer, desensitising him toward the value of life, and maybe even inspiring his own imagination to similar deeds. It is disappointing to see the number of computer games with similar perverse themes continuing to rise.

Another serious problem which responsible parents should be aware of is that most Bulletin Board Systems carry file areas where X-rated pictures may be downloaded by anybody, children included. How material such as this, which is banned in most states of Australia, can be so readily distributed without anyone's conscience being bothered is quite worrying.

It would be good to see more responsible Sysops acting to at least restrict such material. It is illegal, and in my view immoral. Readers' comments are invited on this matter.



**Andrew Farrell**



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If you don't want to cut this out  
photocopy it or just send a letter.



# c64ers...

## Twin Cities

Late last year we mentioned the C128's extended graphics capability, revealed in a US journal called *Twin Cities 128*. Following that article we were forwarded a subscription form by John Asplin. Thanks John - here's the information dedicated C128ers will be after: *Twin Cities* is a 100% C128 magazine fully produced and managed using the C128. If you are serious about using or programming the C128, it's worth a look.

Cost for six issues is US\$12.50, or

US\$25.00 for twelve issues. Post your order to Twin Cities 128, P.O. Box 4625, Saint Paul MN 55104.

## News Maker 128

Free Spirit Software, Inc. has released *News Maker 128*, a desk top publishing program for the Commodore 128D computer and the Commodore 128 computer with 64K video RAM upgrade. *News Maker 128* supports the Commodore 128D in its native 80 column mode.

*News Maker 128* can be used to

create professional looking newsletters, reports, signs and posters. *News Maker 128* can be used as a stand alone program, in combination with a word processor or in combination with graphics software (such as *Sketchpad 128*).

*News Maker 128* uses standard sequential files (CBM-PETASCII) for "pouring" text into user defined columns. In addition to using *Sketchpad 128* graphics, graphics may be drawn by hand with the *News Maker* graphics editor or imported from *Print Shop* graphic disks. Full page layout, pop down menus, smooth screen

scrolling, font selection, cut past, mirror, flip are among the options available with *News Maker 128*.

If a 1750 RAM Expansion Unit is available, *News Maker 128* will configure the REU as a RAM disk. With an REU, the user can have instantaneous access to 45 different fonts, five full newsletter pages and five full screen size graphics screens.

*News Maker 128* requires a Commodore 128 computer or a Commodore 128 with the 64K Video RAM Chips installed, an 80 column RGB monitor, a Commodore 1351 or M-3 Mouse and a Commodore or compatible printer. Optional equipment supported includes the 1750 RAM Expansion Unit and a second disk drive. The second drive can be either a 1571 or 1581 disk drive.

*News Maker 128* is available from Free Spirit Software, Inc. for \$29.95 (U.S.)

For further information contact:

Joe Hubbard, Free Spirit Software, Inc., PO Box 128/58 Noble Street, Kutztown, PA 19530.

## Sketchpad 128

Free Spirit Software Inc., have released *Sketchpad 128*, a complete drawing system for use with a 1351 Mouse. The package takes advantage of the 128's 80 column graphics mode in 640 by 200 pixel resolution.

Features include full menu operation, drawing tips, 3D solids, slide show options, shaded fills, fonts, clipart, 64K video RAM support plus all the usual drawing type functions. *Sketchpad 128* could even be used to create artwork, signs, posters and letterheads. Watch for a review over the next couple of months.

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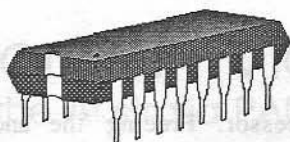
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# RAM Rumbles



## Start thinking and win a BMX BIKE!

If you have a good imagination, and enjoy bike riding or know someone else who does, it's time to get your thinking caps on.

Starting from our March issue, Rainbird and Firebird in conjunction with Questor will be offering a BMX Super X Road Master bike, ideal for 7-15 year olds, and ten runner-up prizes, for the best game or program idea submitted by June 1st this year. We'll be looking for original, creative and well-presented concepts for any program for either the Amiga or C64. Watch for full details next month.



## Dataflow collects Broderbund Distribution

Educational software specialists, Dataflow Computer Services, have managed to secure national distribution rights of Broderbund products. You may be familiar with titles such as *The Print Shop*, which pioneered home publishing, and helped make Broderbund a leader in home educational and productivity software.

In more recent times, *Where in the World is Carmen Dan Diego?*, a geography adventure game, made the charts in big numbers. New entertainment programs, as well as upgrades to existing titles are expected in coming months.

## Sales tax scrapped!

As 1988 faded into oblivion and our offices cranked up the answering machine, an important decision was announced by the Federal Government. We almost missed it! Thanks to several alert suppliers, new price lists - without sales tax - were on my desk in time for the

new year. Surprise, surprise! Some big dollar items are now up to \$100 cheaper.

The software industry has long complained about sales tax, especially on custom applications. Intensive lobbying by several groups, and many long hours of meetings with government officials, led to the decision. This reverses the original installation of sales tax on computer software of 20% in 1986.

Lower prices on all programs can be expected by now. Hardware, memory additions and peripherals remain the same.

## Safe power

Take a look under most computer desks and you'll find a wad of cables leading to those handy four socket power packs. HPM have produced an enhanced version of this popular device, offering protection from power spikes and surges. Retail price is around \$80.

## Multi-Coin Amusements Aussie joystick

Please note that in the advertisement on the inside front cover of our January issue the telephone number for the above company was incorrect. It should have been shown as (075) 37-5711. See advertisement on the inside front cover of this issue for full details.

## Cockroach Software

PO Box 1154  
Southport 4215  
Phone: (075) 91 6188

Cockroach Turbo Rom	\$42.00 including postage
Cockroach Graphics Utility	\$69.95 including postage

## Update



It is rare that I have any good words to say about politicians, but even so early in 1989 I already find that I am agreeing with the statements of two Federal Ministers.

1. Mr Keating. Thank you, kind sir, for dropping sales tax off all our software. This will have a number of advantages:

a) It will mean for the same \$100 you will be able to buy three or four programs instead of two or three.

b) Parents buying educational software will be more inclined to buy more, and varied programs, for their children.

c) Very high priced software will now become attainable for those who really don't know any better (they persist in paying more just for a name) and good Pactronics software will now become excellent, great, superb value for money products.

d) MOST IMPORTANT. Due to your great support resulting in much higher volume sales for Pactronics, we have been able to get better prices from our suppliers on many products and you will find that many of our programs are much cheaper now than just the difference in the sales tax would have made them.

e) In the past, many of you have thought that Australian importers were ripping you off because of the great difference in price between local retail and US retail, but as you will now see, the greater part of the difference was because of sales tax.

2. The second politician to whom I am grateful is the Minister for Trade, Mr Kerin, who has suggested that we buy things Australian, and although there is not a lot of software available which is written in Australia, Pactronics do do a lot of the production of programs here, ie duplication, packaging, printing of inserts etc, and of course **FLIPPIT**, the best Australian game written so far and certainly far better than overseas games of the same type.

Amiga lovers, see page 25, and all of you watch this column next month for news of our competition.

Advertisement



# Notepad Notepad

## New 20 MB Hard Drive for Amiga 500

Don't be surprised if Amiga 500s soon start popping up in more and more professional environments. Commodore has developed a hard disk plus RAM expansion unit that gives the popular home and education computer more computing power than some fully configured PCs.

The new peripheral, the A590, combines the most popular Amiga 500 accessories (hard disk drive and RAM) into one compact unit that attaches to the side of the computer. Several new and advanced components combine in the A590 to achieve a significant breakthrough in the ratio of price to performance.

The A590 unit contains a 20MB slimline 3.5" hard disk drive, and a SCSI interface for adding additional external hard drives, CD ROMs or Optical disks. Sockets for up to 2

megabytes of fast RAM enable you to expand the memory of your Amiga 500 by simply plugging in additional DRAM chips.

A custom DMA controller chip designed and fabricated by Commodore specifically for the A590 maximizes the implementation of multitasking. This chip provides a true DMA interface between the Motorola 68000 CPU and the hard drive.

Other hard disk interfaces use programmed I/O to transfer data, which slows down the CPU. This custom DMA controller has a maximum transfer rate of 2.4 mb/sec (depending on drive), which is two to three times more efficient than programmed I/O.

Another feature of the custom DMA controller is the ability to perform memory to memory DMA transfers anywhere within the 16 MB address space of the 68000 mi-

croprocessor. Freeing the CPU by means of custom coprocessors has been a key element in the architecture of the Amiga.

This level of performance is made possible by a unique self-adjusting, dual-ported synchronous eight word (16 bit) FIFO with built in byte-to-word funneling contained within the custom chip (What a mouth-full!). This chip, containing in excess of 16,000 transistors, is fabricated in 2 micron double-level metal CMOS by Commodore's semiconductor manufacturing facility.

The A590 has its own external power supply with an autosense switch that turns on the A590 automatically when the A500 is switched on. This practical feature allows for flawless autobooting of the hard drive.

The hard drive and RAM are completely autoconfigurable - a concept which was pioneered on the Amiga to allow the operating system to recognize what resources are available and to automatically set I/O addresses.

The A590 is expected to dramatically upgrade the usefulness of the Amiga 500 as a professional computer. The A500/A590 combination could have 3 megabytes of RAM and a 20MB hard disk in addition to the standard 3.5 inch floppy drive and 68000 processor, supporting the other Amiga features. This is more computing power than many fully configured PCs. With the Amiga's multitasking operating system, the A500/A590 will break yet

another price/performance barrier.

Commodore's vertical integration from chip design and manufacturing through the final product enables Commodore to offer significant performance in remarkably affordable computer systems.

## Aegis Draw 2000 ships for the Amiga

Los Angeles, California - Aegis Development, Inc., today began shipping Aegis Draw 2000 at the Ami Expo show here at the Westin Bonaventure Hotel. Aegis Draw 2000 replaced Aegis Draw Plus, the best selling Amiga CAD program, as Aegis' high end design system for the Amiga family of computers. Suggested retail is \$279.95 (U.S.), and the minimum hardware configuration is 1 megabyte of RAM and two disk drives.

The package includes two versions of Draw 2000: one for use with the standard Amiga 68000 processor, and another supporting the 68020/68881 coprocessor board (making the overall speed of the program increase by 20 to 50%, or more). It also includes the ability to display drawing in Workbench windows, thus increasing the number of drawings which can be displayed at one time, and the speed with which they are drawn. All reported bugs have also been corrected.

"Aegis Draw 2000 is the latest example of our commitment to the Amiga market," said company president David Barrett. "Draw 2000 is the result of our listening to our





users and giving them the best possible product."

*Aegis Draw* and *Draw Plus* product owners will be notified of the upgrade to *Draw 2000* by mail, and all registered *Aegis Draw Plus* owners will be given the opportunity to receive a free *Draw 2000* manual as a replacement for their current two-manual set. The upgrade fee is \$20.00 inside the U.S., \$30.00 for all other countries. This cost includes the price of shipping and handling. An upgrade from *Aegis Draw* will cost \$150.00 (U.S.). Upgrades only available from Aegis Development, Inc. For more information on upgrades, contact Aegis' Customer Support Department at (213) 392-9972 (voice) or (213) 392 6445 (fax).

### Sex Vixens from Space - banned in Britain!

The latest shipment of *Sex Vixens* from Space, Free Spirit's popular adult game for the Amiga, has been impounded by the British authorities. While other packages in the shipment have been released, it appears that the porn squad will destroy the *Sex Vixen* packages.

Joe Hubbard, resident of Free Spirit Software, Inc., issued the following statement with regard to the incident:

"While *Sex Vixens* from Space may be a bit racy, it is not pornographic. Apparently, the British authorities are either quite prudish or completely lacking a sense of humor. Regardless, freedom of artistic expression and the freedom to disseminate such are corner-

stones of democracy. The act of seizing these game is the act of a fascist government."

### Ultra DOS Utilities to be Bundled with Australian M.A.S.T.

Hard Drives Free Spirit Software, Inc and Memory and Storage Technology, Inc (M.A.S.T.) have reached an agreement whereby M.A.S.T. will install Ultra DOS Utilities - Module 1 on all hard drives sold by M.A.S.T.

Ultra DOS Utilities - Module 1 has earned the reputation as the most versatile hard drive backup and file management utility available for the Amiga. This award winning utility performs virtually all AmigaDOS functions at the click of a mouse button. Ultra DOS will give owners of M.A.S.T. drives a quick and easy way to install or backup software on their hard drives.

M.A.S.T. manufactures a variety of peripherals for Amiga computers. Among its products are 20,40, 65 and 180 Meg hard drives. M.A.S.T. has earned an excellent reputation for quality, performance and value of its hard drive systems. The inclusion of Ultra DOS Utilities on M.A.S.T. hard drives further enhances the value of M.A.S.T. hard drive systems.

For further information contact M.A.S.T. on (02) 436 2600.

### Free Spirit Releases 1.3 Upgrade of Ultra DOS Utilities

Free Spirit Software, Inc. has released an upgraded version of Ultra DOS Utilities

to provide compatibility and support for Amiga DOS Version 1.3. Ultra DOS Utilities is the award winning file management and hard drive backup utility for the Amiga.

The upgraded version of Ultra DOS is fully compatible with both AmigaDOS version 1.2 and 1.3. In addition to supporting the enhancement of Amiga DOS 1.3, the new version of Ultra DOS contains many new features to make file management and backup faster and easier.

Registered owners of Ultra DOS Utilities may obtain the upgraded version by sending their original program disk and \$10 (U.S.) to Free Spirit Software, Inc., P.O. Box 128/58 Noble St., Kutztown, PA 19530.

The upgraded version of Ultra DOS Utilities will continue to be sold for (US)\$59.95 retail.

### GPterm 4.0

Greg Perry and Steve McNamee have released the fully functional version of their telecommunications software with both Videotex and ANSI emulation. This latest version is significantly more bombproof and has an improved range of protocols for file transfer.

The range now includes ZModem, Kermit, Sealink, YModem-batch, Hunter, YModem and of course the original XModem. Most other major improvements amount to fine tuning and tweeking, however, there are also several additional pulldown menus.

Other improvements include new ANSI emulations, extra ASCII send/capture options, new videotex autolog and print functions, faster text displays now up to 9600 baud, new hot keys, and double click menu functions.

An upgrade path is available.

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ble to owners of older versions. Owners of version 3.?? purchased after 1st November, 1988 are entitled to a free upgrade by simply returning master disk along with proof of date of purchase and cheque/money order for \$2.50 for p&p. Owners of version 3.?? purchased prior to 1st November, 1988 must pay \$25.00 and those who purchased version 1.0, specifically the Net-comm version, must pay \$35.00.

Send your details, disk and money to GP Software, 21 Aloomba Road, Ashgrove 4060. Alternatively phone (07) 366 1402 for information or contact via modem on the FIDOnet node 640/304, CCUGQ BBS 07 344 1833.

## Commodore USA turn over new leaf

According to sources in the U.S.A, things are changing for the better. We're not talking sweeping improvements, but hopefully an underlying sentiment that will be echoed locally.

Speciality magazine have been targeted with Amiga's music and video capability. Feedback from users and developers is being sought. New dealers have been added. Software lists have been compiled. New staff are being hired. Special attention to the education market has increased.

If Commodore Australia follow this lead, and even to a lesser extent if they don't, we can look forward to people taking the Amiga more seriously as a real alternative to main stream computers - and maybe one day it will be

viewed as a main stream computer.

## Applications

Commodore computers have turned up in the strangest of places. We know the ABC has a few, many TV stations have one in the back room, especially regional operations. In Canberra they pop up in ads, and in movies they pop up as props. We spotted one in *Flying High* - a Vic 20 to be exact. But, we would like to hear from readers who know of interesting applications the Amiga is being put to.

## Xerox wins Design Patents

Apple computers had better watch their step. Xerox have finally nailed down design patents on their Waste-basket, File Folder and other icons used in the Xerox work station. The table has turned on Apple, who may find Xerox making legal moves against them with a new mightier clout. Will Commodore be involved? We think not - the Amiga is just that much more different. Could it affect Apple? Imagine if they end up having to change the whole look and feel of their operating system.

## DeluxePaint III

Electronic Arts have confirmed rumours of a *DpIII* in the future. Dan Silva, author of the famous Amiga program, showed off his personal copy at a user group meeting in the USA. Easy to use animation features were just one of the many additions. Think

long and hard, EA. I guess they won't want to clobber *Deluxe Photolab* - with HAM and Extra Half Bright modes - so we may never see the truly ultimate paint package.

## Commodore Amiga outsells MAC!

Apple, eat your heart out, the Amiga is finally getting a neck in front. Sales figures from just prior to Christmas in the USA show the Mac starting to fall into second place. Of course both machines continue to sell well, so it is not true that one is grabbing the other's market. But people are starting to realise that the Amiga is better value for money, and multitasking is not just a gimmick.

## Ashton-Tate may move to Amiga

By this time there should be over 1,000,000 Amiga's

world wide. What does that mean? It's time for the big boys to take a second look. One company is already receiving pressure from within to give the Amiga more attention. Following the dismal failure of the presentation graphics package for the IBM by Ashton Tate, Amiga fans inside A-T are according to one source pushing for an Amiga version. This year could be the year the Amiga gets some real professional software.

## Amiga-Live!

Issue two is finally out. Just repeating, the magazine on a disk we now sell is bi-monthly, despite mistaken advertising saying otherwise. It's also running behind schedule. Nevertheless, issue two looks to be better than issue one. Why not check it out. Call (02) 817-0011 for details.



Mr Ron Vogt of Kings Park is presented by the editor with a California Access CA 880 external Amiga disc drive. The competition was held at the World of Commodore Show by Computer Mart who kindly donated the prize. Computer Mart import and distribute many popular programs for the Amiga range including the successful Kind Words word processor. For information call (09) 328 9799.



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# LETTERS

## TO THE EDITOR

### Praise & High Scores

First may I say how much I enjoy your magazine. The articles are helpful and well written, while your reviews give a good guide (and unbiased) to software purchase.

After reading the "high score" chart in the November issue, my wife and I decided to send in a few of our own. Perhaps the high score chart could become a regular feature of your magazine.

**Anthony Sharpe  
Cessnock**

*Ed - Thanks for the scores - we'll be sure to add them in next time the list is published. Good suggestion too! All we need are more up-to-date high scores to publish and away we go. So why not send them in, readers?*

### GEOS - Printer & Mouse

I have recently purchased a copy of GEOS for the C64 but as yet I do not have a printer (as you can see by this hand scrawled letter). I am at present thinking of buying a printer for use with GEOS. Which printer would you recommend for the purposes of both wordprocessing and graphics? I am also looking to buy a mouse for use with GEOS. I would appreciate you advise on this as well.

**S. Dodsworth  
44 Cartwright St  
Ingham, Qld 4850**

*Ed - Both the Star and Fujitsu range are fine printers. Commodore also has a number of good choices which are rebadged Okidata printers. In general terms you get what you pay for. Although we always recommend a centronics type interface,*

*in case you need to update down the track.*

*Commodore has a mouse, as does Pactronics. The choice is a personal taste decision.*

### What did some people think of our new format?

It looks like I have bought my last *Australian Commodore and Amiga Review*. The October issue should be called *The Amiga Review*. That's all I have to say, I will just save my money, it's a pity because I have really enjoyed the past issues.

You did mention in your editorial C64 owners might feel left out, so obviously you felt a bit guilty with your new format, and rightly so.

**Mrs. J. L. Gibson  
West Beach**

Ok!! First things first!! You've changed the magazine so why not change the name to suit? How about *Australian Amiga Review with Space Filled in by C64*?

Andrew Farrell's comment "C64 owners may feel like we're starting to sweep them under the carpet" doesn't tell the half of it. I have been buying AC&AR primarily because unlike other magazines, the majority of the magazine applied to my machine; the C64. Now we get the odd mention here and there. Who decided that the Amiga was to be force fed to us? If it's so popular keep the separate mag for it and leave our mag in peace.

While I'm still buying the mag I think the changes are a sell out for C64 owners and I reckon the magazine must have a large shareholder

named CBM.

**B. Spadaro  
Casula**

*Ed - Our second reader has stayed around long enough to see that we saw the error of our ways, and there is now still plenty of C64 material in each issue. We will continue to aim for a balance between the two machines, but not every issue will be perfect as new products appear more for one or the other computer. The idea is of course that many, especially entertainment titles, appear for both.*

*As for the Commodore shareholder bit, no, we are totally independent. Our thinking is shaped by your feedback. Thanks for your comments. The C64 will remain well supported. If you count up the actual pages of editorial, I think you will agree.*

### Working on an 8250

I wonder whether you could answer a question for me. My setup is a Commodore 128, a 1541 and an 8250LP dual disk drive, plus the venerable 1526 printer. A Phillips black and white monitor completes the picture.

I use the system for my cleaning business, running *Superbase* which works very well. What originally happened was that I bought *Superbase* and loaded it from the 1541 - then an acquaintance in computing got stuck into it and converted *Superbase* so that it would load and run straight from the 8250 drive (drive 0).

My question is can this be done for other programs? Is there a way of getting programs which are designed for the 1541 or the 1571 to



run as my present *Superbase* programmed ones, on the 8250? The guy who did the deed originally actually said that there wasn't much work in it, so many commands etc were identical to both drives.

Any ideas, or even clues as to how I could track down the answers?

S. Przybylski  
35 Vincent Blvd,  
Flagstaff Hill, SA 5159

*Ed - Programs which are modifiable such as a Superbase program would only need minor changes to operate on a different device. Just change OPEN statement from 8 to 9, and likewise for LOAD and SAVES within the program. However, some software written in machine code will be difficult to modify without assembly language experience.*

### Expert Cartridge V3.2!

I am writing to you to tell you how pathetic your article on

"Cartridge Capers" was.

For a start, who cares if a cartridge has "...two high quality momentary switches?" Not one person with half a brain would buy a cartridge just for the high quality switches. Why don't you read the British magazines and take a leaf out of their book? None of the British mags mentioned anything about the switches on the cartridges, because after all, WHO CARES?

Secondly, why didn't you actually spend some time reading the instructions for each cartridge? You say the Expert's instructions are "...poorly written..." If you read them properly you would have found out that they are very easy to follow and understand.

On the feature list you listed a whole lot of features unique to the Final Cartridge 3 e.g. the extended Basic commands. Why didn't you list a few things unique to the Expert 3.2 such as the ability to change sprites and enter them in different programs plus all of the other

functions unique to it? You didn't even mention that it is cheap to update (\$10 compared to much more for the other cartridges).

In the listing of the features, you didn't say that the Expert has a "Rocket" turbo loader, which is actually faster than the Action Replay 4 Warp 25 loader. Who needs a note pad on FC3, let alone a calculator?

And lastly, why did you only test TWO programs and say that the results are very useful? Anyone should know that freezing two programs will not tell you much about the cartridge's capabilities. Because AR4 froze them both, you said that is has "...the most advanced snapshot facilities around." Also the Expert DOES have a display directory option, use the Expert Express.

It is sad for me to regret that I will not buy your magazine again, you can't even get a simple cartridge review correct! I know you won't print this letter because it doesn't praise your magazine like most other letters I have seen.

Australian Commodore and Amiga Review

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I know I made the right choice. I didn't take notice of your review and I bought the Expert Cartridge V3.2.

**Simon Wallace  
Illawong**

*Ed - After having used a number of different cartridges, buttons did matter. If the button stops working, the whole cartridge is useless! Several cartridges that have been through our offices died due to cheap buttons. Secondly, the Expert Cartridge is really in a world of its own.*

*It may have many different features, but not all at the same time. It is not a practical quick and clean solution. It has power, I admit. Once you've used others with similar features that don't require "downloading" of files to obtain basic functions, the Expert becomes less appealing. Our opinions were compared with those of user groups and other writers. All agreed on our conclusions.*

### Impossible Mission

Have I got a trick for you. If you enter and run this before loading the game you will find that you have disabled the sprite collision detection. This means the robots cannot kill you.

1 For X + 320 to

```
347:READY:C=C+Y:POKE
X,Y:NEXT
2 IFC=2941 THEN POKE
157,128:SYS320
3 PRINT"DATA ERROR"
4 DATA 32, 104, 225, 169, 83,
141, 243, 3, 169, 1
5 DATA 141, 244, 3, 76, 13, 8,
72, 77, 80, 169
6 DATA 96, 141, 16, 120, 32,
132, 255, 96
```

Now you can complete *Impossible Mission* on the C64.

**Clayton Gardner  
Oatley**

*Ed - Thanks! Keep them coming.*

### Typing Practice

In your magazine dated November 1988, amongst other very worthwhile articles were listings for two programs - Memory and Typing Practice.

The second in particular appealed to me, and I decided to use it to extend my typing capability, away from the two finger job. Being a newcomer, I typed out this program till coming to line 14, where I came across a command (SWUC) which I could not comprehend, so I left out this line. Further on in line 70 (C+) then in line 86 (Co). So I decided to seek help before going any further.

When I spoke to the President of the Commodore users group up here, he pointed out to me that because this program had been written by an outsider to the publication, he had been using some personal command instructions which as in this case are not widely used by the system. Secondly, that once upon a time such commands that could cause concern were listed and explained separately after the program.

Would it be possible for me to get those above mentioned commands explained to me, and if there is any publication or book that could help me unravel those mysterious commands.

Another question, if I may ask it: has there been an article comparing the Excelerator to the 1541-II, if so where could I find it.

**Mike Ackerer  
Casuarina**

*Ed - To put it briefly, all these abbreviations are based on the shifted graphics symbols, colour controls and cursor key functions. A listing appears below of one standard we used - any variations on this can usually be understood by referring to this chart.*

*There is a review of Excelerator Plus in our Commodore Annual 1989. We have not done a direct comparison with the 1541.*

10 rem explanation of listing	44 print"{WHT} - commodore and white"
12 rem	46 print"{RED} - commodore and red"
14 print"{CLR} - shift and clr/home"	48 print"{CYAN} - commodore and cyan"
16 print"{HOME} - clr/home"	50 print"{PURP} - commodore and purple"
18 print"{C/DN} - cursor down"	52 print"{GRN} - commodore and green"
20 print"{C/UP} - cursor up"	54 print"{BLUE} - commodore and blue"
22 print"{C/RT} - cursor right"	56 print"{YELO} - commodore and yellow"
24 print"{C/LF} - cursor left"	58 print"{RVOF} - ctrl and rvs/off"
26 print"{BLK} - ctrl and black"	59 print"{RVON} - ctrl and rvs/on"
28 print"{WHT} - ctrl and white"	60 print"{F1} - function one"
30 print"{RED} - ctrl and red"	61 print"{F2} - function two"
32 print"{CYAN} - ctrl and cyan"	62 print"{F3} - function three"
34 print"{PURP} - ctrl and purple"	63 print"{F4} - function four"
36 print"{GRN} - ctrl and green"	64 print"{F5} - function five"
38 print"{BLUE} - ctrl and blue"	65 print"{F6} - function six"
40 print"{YELO} - ctrl and yellow"	66 print"{F7} - function seven"
42 print"{ORNG} - commodore and black"	68 print"{F8} - function eight"



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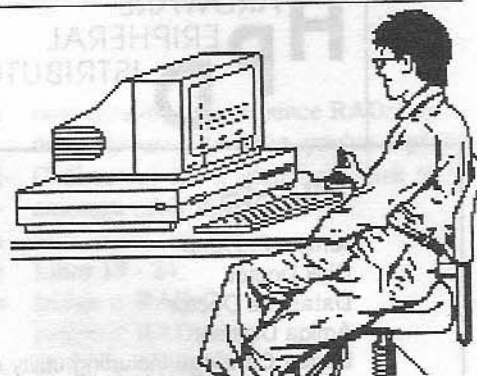
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# Clicked on Games Clicked on Games Clicked on Games

## Entertainment Roundup



It's catch up month. The last few weeks have seen only a handful of new titles, with many titles planned for Christmas release still yet to appear. However, of the barrage of programs we did receive, this month our reviewers got around to checking them out. New to the team for '89 is Richard Silsby.

I should also mention that unsolicited game reviews are rarely accepted - but we are always on the watch for other types of articles on games, especially hints, tips, and how-to-beat type stories.

Eagle-eyed readers may have noticed ads for *Boomeroid* in issues of *Amiga*

*World*. This downunder educational game is one of the first real Australian theme programs to hit the states. More are on the way, ready to ride what's left of the wave of interest in our beautiful island. Watch for a complete round up of new titles next month. ■

## Skate of the Art

Yes, people, the skate or die era comes to the Amiga. 1001 Line L Software Developments, a group of people who have been used to breaking protection on other games, have decided to do something great for the software industry.

This is a left-to-right go-all-out skateboard game which offers plenty of challenge for the smarties and plenty of fun for the not so orientated skate or die heads.

Thirteen levels of enjoyment plus the odd bonus level make this game great fun. The sound is great, and the drum solo at the loading makes great listening as well. Instructions are given in a menu which is presented to you just after you load up halfway. You get the option of playing the game or joystick information.

You would expect the joystick info to be in writing, but not so. Presented to you is a screen with a picture of a joystick on the left and a picture of your

man inside a picture box standing on his board.

Now as you move your joystick in a direction, with or without the button depressed, your man will show you the manoeuvre you will be able to complete. There are many moves in this game, ranging from just a push to a jump, and from a single jump to a double flip.

Movement is incredibly smooth with a slow motion feature added in to give you that animalistic view of a slow motion double flip.

Some of the challenges that await your arrival are hills, gaps in the ground, and round balls which cause you to come a cropper if you happen to hit them.

Once you get used to the moves and joystick action, it is easy to grasp the game. But just when you think you are getting the hang of it you are blasted into a challenge of cosmic proportions. You must roll down a hell ramp about five metres long at 45 degrees, which gives

you the incentive to power down it right, but how wrong can you be.

At the bottom of the ramp lies a plank seat (you know the ones about ten metres long you used to sit on in the playground at school), which you must JUMP on and stay in balance, which isn't that much of a problem.

Once you finally get off the seat you must jump a swimming pool and land on the other side of it, which I still can't seem to do. Can anyone? Because I have tried for hours but I still can jump that stupid swimming pool. One funny thing is, that if you don't complete the bonus level that is the end of the game, (on my disk anyway). Overall this game is outstanding. About the pool, my disk might have an error on it or it's got a virus, a couple of days in the wash or a new one might help a lot. Graphics in this game are quite good and the scrolling is great, you won't notice any twitches in the jumping, etc. Good work, guys at LineL, you have finally done something, and you've done it well. ■

Published by 1001 LineL  
Software Developments



## Robbeary

by John Hatchman



Once again, another platform game has found itself on the Amiga. *Robbeary*, as it is known (quite an unusual name, don't you think), is a standard platform game like *Frantic Freddie* of 64 fame.

Basically you are dropped into one screen at a time to eat all the fruit on that level without the big bad nasties catching up to you. You are represented by a slick-moving, high-jumping bear, who must run around the screen like a raving scab eating all the fruit on each level.

Once you are teleported to the first level, you must collect as much fruit as possible before the nasties hatch, and chase you. They are not your ordinary nasties either, they just have enough brains to know who to chase and kill.

Once you collect some of the goods

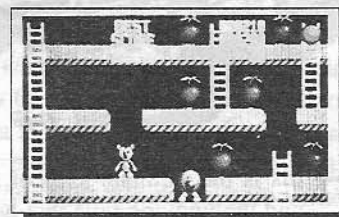
from the frame the diamond will appear, along with mushrooms, crosses and keys. Mushies are a no-no, as they tend to stun you for a second or so, thus letting the bad guys catch up to you. Diamonds come in different colours, they are red, green, and grey.

Green diamonds are like green lights, they make you go, go, go. As for the grey and red, they just give you bonus points. If you manage to complete a frame before either the bad guys get you or you run out of time, you go to the next frame. Mess around for too long and you might just notice that the baddies go into metamorphosis and re-emerge with twice the amount of power and speed.

If you're a lover of platform games then this is the game for you. Twenty-

five levels of sheer excitement. This game is in the budget range which makes it good value for money. The opening track of the game leaves something to be desired, but I suppose for the price this minor glitch could be disregarded.

As for playability, it takes a little time getting used to being sneaky and what to watch out for. This is one of the better platform games on the Amiga, definitely worth the money if you are a platform freak. ■



Published by **Anco Software**.  
Coming soon.

## Psycho Pigs UXB

by Richard Silsby

Finish your smoky bacon crisps and get your teeth into this meaty pork pie of a game from Jaleco.

In *Psycho Pigs UXB* you are a pig in the intergalactic pigsty and when the referee's whistle blows to begin each round, it's trotters to the ground as you take on a group of pigs who are all wishing to avoid this Sunday's dinner table. It's every pig for himself so don't expect any help from your fellow porkers.

On the field bombs are placed in strategic patterns. What you have to do is pick up these bombs and hurl them at the other pigs in the paddock to save your own bacon. These bombs begin to count down when you pick them up and when they get to zero, you guessed it—they explode.

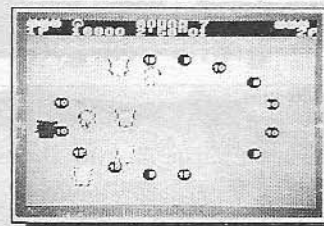
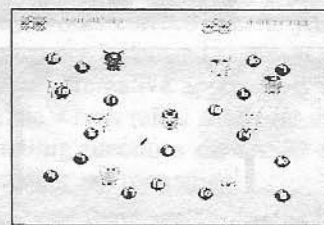
Put your back into it, no time for ir-rashenal thinking, as you gammon to the field to keep fit and lean. Streaky

movement will keep you off the scratching listings and save your bacon. After certain levels you will be awarded a bonus round. In this case you must attempt to kiss the lady pigs (sows) as they pop up and down. It's a hard life but some pig has to do it.

This game, when it came to the crux of the matter, was a let-down to play. It didn't have any variety or points of interest so as to keep the attention focussed on playing the game for a long time. The music too was annoyingly monotonous and did not seem to have any harmony. Graphics were colourful but nothing out of the ordinary, as they lacked detail and interest.

I found this game is tripe and not brilliant, imaginative and addictive. For the very young ones this may be a good starter to get them to use the computer. But for those more interested in travers-

ing the galaxy and putting an end to all those creatures floating in space creating havoc for the average humanoid space traveller, to come down to this intergalactic pigsty will just bog down your enthusiasm. So stick to your bacon and eggs and move onto greener fields. ■



Published by **Jaleco**, distributed by Ozisoft, (02) 211 1266 RRP C64 cass \$24.95 disk \$29.95 (C 64 only).





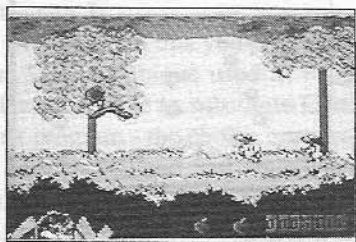
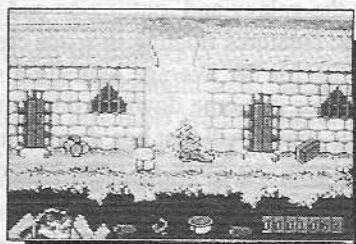
# FOXY Fights Back

by Richard Silsby

C64

**T**his is the ultimate saga of a fox and the undying love that he has for his vixen. It shows your enduring breadwinner going out time after time to bring home the food for his ever hungrier, better half.

The plot is simple. A variety of food-stuffs are scattered across the landscape.



You have to collect them and return them to your ever hungry wife.

But it is not all smooth sailing for this ambitious fox because there are a few nasties lurking in the distance ready to put an end to this mushy love story. You encounter any amount of animals trying to stop you getting a well earned feed. They range from monkeys to beagles and even the birds have something against you. Dropping their bit in the way of your adventure.

For your lady love you bring back an array of foods such as sausages, apples, pies and the like. For your own palate you can choose from fluffy white bunny rabbits along with some young chicks, although I felt that the bunnies needed a bit of salt as they were pretty bland.

Also if you are trying to keep to a diet, then this game is sure to provoke a bout of eating.

The screen is well arranged, with the greater part dedicated to the smooth horizontal scrolling background and play area. Below the main part of the screen you have your pantometer, shopping bag and score.

Your pantometer represents the stamina of the fox, in vivid terms. As your energy level drops, the fox's tongue gradually falls further out of his mouth.

On your journey you carry your trusty pistol which will be vital in getting out of some of those sticky situations. This transforms into bigger and meaner

weapons of protection as you travel across the country side.

A lot of attention to detail has been put into the graphics. It made me reminisce about all those English fox hunting scenes that I had seen. But now the shoe is on the other foot.

A useful option enables the player to select an accompaniment of either pure sound effects or the tunes of a symphony orchestra. Which was heartening for me since I am such a culture buff. These sorts of options should be, and are thankfully fast becoming, standard on all of the better games.

A major point that annoyed me was that when your fox dies the screen scrolls back to a starting point. Depending on where you end up you may spend up to 30 seconds waiting to resume play. It doesn't sound like much of a quibble, but it does get annoying after a while.

Overall, good play appeal, which I found disappointingly short lived. Graphics and music grab the attention to start, but after a while chasing food I started to feel that if this is the sort of situation that marriage gets you into, I think I am destined to the life of a bachelor. An arduous love story nevertheless, worth trying your hand at.

Review copy from Ozi Soft  
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# THE FLINTSTONES

by Richard Silsby

C64



**Y**abba Dabba Doo. It's the Flintstones, your modern stone age family. Return to the enjoyment and fun that the famous Flintstones cartoons brought into your lounge room. With all the usual characters of Wilma, Barney, Betty, Pebbles and of course the bumbling star of the show, Fred Flintstones.

This game, which is distributed by Ozisoft with the conversion by Grand-slam, depicts the Flintstone and Rubble family in Bedrock with the events that occur over just one weekend.

You as Fred take on several different roles, from a painter to a mechanic, then to a bowling champion to a private investigator. All of the different scenarios see Fred trying to help out, but whether this clumsy fool can get something right is up to you.

Start the weekend off with an old promise you made coming back to haunt you. Don't you remember promising to paint the living room before you went bowling, because you know that Wilma's mother is coming to visit?

So you begin with the drudgery of painting the living room. But it is not as easy as just splashing a bit of paint on the walls. You have to mind Pebbles, your treacherous daughter, while Wilma is out shopping. And you know what Pebbles will do when she gets a paint brush in her hand. So along with painting and keeping the animal you are using as a paint brush under control, you have to keep Pebbles in her cage so that she can't get out and express her artistic talent all over the walls.

You finish painting the walls before Wilma gets back, and haven't let Pebbles help you too much, so now you are free to go to the Bedrock Super-Bowl contest. Even on your journey to the bowling al-

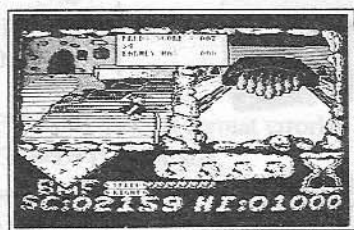
ley you can't get there without some slip up.

It happens this time that you lose a wheel off the car on the way to the bowling final. So you have to replace the tyre quickly so as to make it on time. But it isn't as easy as just putting the spare on. This is Bedrock, remember, so you have to find a replacement.

If you do find the replacement in time, then you come to the best part of the game - the Bedrock bowling alley for the Super-Bowl final. It is you, twinkle toes Fred, against your buddy nonsense, butterfingers Barney.

This is the best part of the game because along with bringing in the characters from the Flintstone cartoon (no doubt at a very expensive price-we have it on good faith that it cost a good year's supply of brontosaurus steaks!) the designers have simulated the action of ten-pin bowling fairly well.

After the final, and with the old friendship patched up as one of you had to lose, you return home to find Wilma very depressed as Pebbles has escaped from her pen and disappeared.



Fred eventually finds her perched high up on a stone girder, above the new building site, totally unaware of the dangers around her. It is now a battle for Fred to find his way through the bewildering array of girders and ladders. Will he be able to get to her in time and become the hero of Bedrock? Or will Barney once again beat him and so he will be called useless by the whole town? Only you can decide.

I enjoyed reliving a part of my childhood that will always be waiting for opportunities like this to come out and reveal itself. I'm sure a lot of you have that same part of you trapped inside waiting to be let out.

If that doesn't sound like a good excuse to buy this game, you can always buy it for your kids and when they are asleep at night, you can pull it out and experience again the fun that you got out of watching the Flintstones cartoons.

It is a pleasing experience to the ears and eyes. As you go through the adventures that this game presents you have the theme used in the cartoon playing in the background. Graphics are interesting and colourful, although lacking some detail.

This is an interesting game to play and even if the kids are the only ones to enjoy it, enjoy it they will. It will get your kids away from the mindless television screen to less mindless computer game. So when you do try this game I can honestly say, as does the cartoon, that "you'll have a yabba dabba doo time."

Review copy from Ozi Soft  
(02) 211 1266, RRP Amiga \$39.95,  
C64 cassette \$24.95 disc \$29.95



# Hotshot

by Richard Silsby

"A futuristic arcade game, mixing the excitement of the arena where gladiators fought for their lives with the electronic wizardry of pinball..." is what the back of the *Hotshot* box said about the game. It went on to say, "There is so much in *Hotshot* you need to be a crack shot, a pinball wizard and an ace controller." and "Universally acclaimed as the greatest game this century. *Hotshot* has exceeded all expectations."

So if all the talk was true, the C64 version of the game *Hotshot* was going to be the experience of a life time.

I hurriedly ripped it out of the box and into my drive, slotted in my joystick and took a seat preparing to be blown into the next room by this game of the century.

It clicked up and I was surprised at what I found. I expected a game with unmatched graphics accompanied by music so good that my speakers would crack under the pressure. But I got neither! It wasn't a game that was particularly amazing to the senses of sight and sound. No bright flashing colourful graphics, or loud raging music.

*Hotshot*, the game developed by Addictive Games, does have a very good story line that is completely different and new. It is a pity that the C64 version could not have been spiced up with some preservatives, colours and flavours to help the medicine go down, artificial or otherwise.

*Hotshot* shows a lot of flair when it comes to play appeal through a new and adventurous idea. It mixes very well the aggression of fighting an opponent to the death with the defence of trying to score enough points just to save yourself. It is a game where you must win just to stay alive.

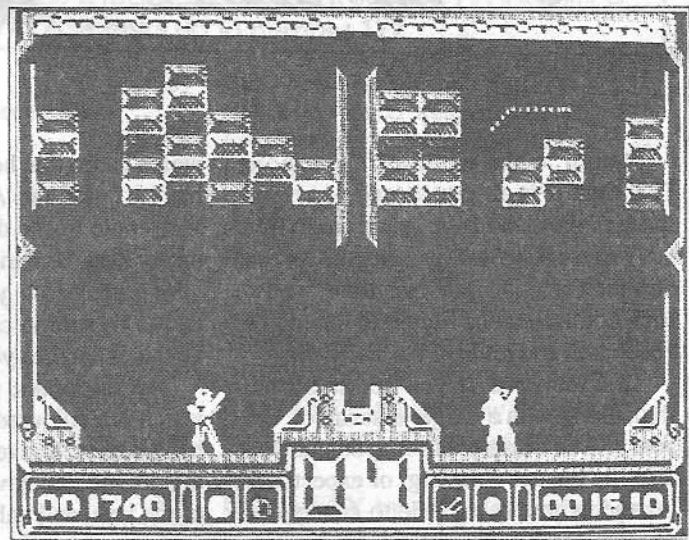
At the beginning of the game you are picked a body to go into battle with (it is picked at random by the computer from a selection of five bodies!) and if you are playing against the computer, then it too chooses a form to go into battle with.

You have as your only means of defense and attack in this game a weapon called a Graviton Gun. This is used to attract a deadly plasma ball, which is bouncing around the screen like the ball in a pinball machine. Once you have the ball you can either fire it at your opponent or fire it towards pinball styled bumpers and blocks so as to attain points to progress to the next stage. But don't hold the ball too long or you will blow up.

There are five levels in *Hotshot*, with a bonus round between each. You must score the required amount of points to progress to the next level both in a normal stage and in a bonus round. Each level has a different looking arena which may employ defensive or aggressive moves. For this main reason it is an interesting game to play as it will keep your mind alert for the variety that is shown.

As noted, the graphics are nothing special. On the C64 version the screen was too sparse of colour and other effects. They would only need to improve the background to make this game much more appealing.

Despite this, they have simulated the



effects and experience of playing a pinball game on a television screen rather well. Even the problem of getting the ball stuck on a pinball in a place where it cannot be pushed or pulled loose. I experienced this during a game, and you can't just simply tilt the machine to let the ball start running again, because you are playing on a television screen remember.

Overall I would say that *Hotshot* is a better than average game simply on the knowledge of the new and different ideas that have gone into making this a unique game to play. It will also appeal to those oldies among us who used to love to go down to the corner store and play pinball for many hours.

But if you're into having the screen light up with amazing effects and colours, *Hotshot* will be your dropshot. It's a flop in the special effects department.

Distributed by YPA holdings (02) 899 2277. RRP C64 disc \$32.95 C64 cassette \$25.95 Amiga \$43.95 Amstrad disk \$32.75 Amstrad Cassette 25.95 Atari ST \$43.95 IBM and Compatibles \$43.95

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Commodore and Amiga Review 21



# CYBERNOID II

## THE REVENGE

by Richard Silsby

Return to the world of *Cybernoid*. This time it is all out revenge on these space pirates who have stolen cargo from the Federation Storage Depot. As you did such a good job last time, you've been commissioned again to defend the Federation and retrieve the stolen cargo.

In *Cybernoid II* you get an all new ship, along with a bigger arsenal of weaponry. The variety of weapons at your disposal creates a feeling of expectation. Instead of just being able to concentrate on out manoeuvring the space pirates solely, you have to keep an eye on the weaponry that you are going to use to shoot these space pirates down.

You have seven weaponry modes to choose from. They are firstly plain bombs, secondly time bombs, then defence shields, bounce bombs, seeker bombs, smart bombs followed by last and by no means least tracer bombs.

All of these will come in handy at some stage. To try to go into this challenge without bothering to use these available weapons is like trying to cross the universe in a Sydney taxi, or even simply trying to get a Sydney taxi.

On your journey you travel through various chambers with all sorts of traps set by the pirates waiting for you to fall into their hands. Many of the chambers will hold you in their grasp because of the difficulty involved in simply manoeuvring yourself, let alone having to worry about avoiding kamikaze space pirates and stray bullets.

Along with your mission of revenge against the space pirates, you must return to the Federation Storage Depot all the cargo that they stole. After a pirate ship has been shot down he will drop the

stolen cargo that he is carrying. This you have to pick up. At various stages you will come to the depot where you dock and unload the retrieved payload.

To replenish your quill of armoureds be sure to collect weapons cargo as this is vital to your safety.

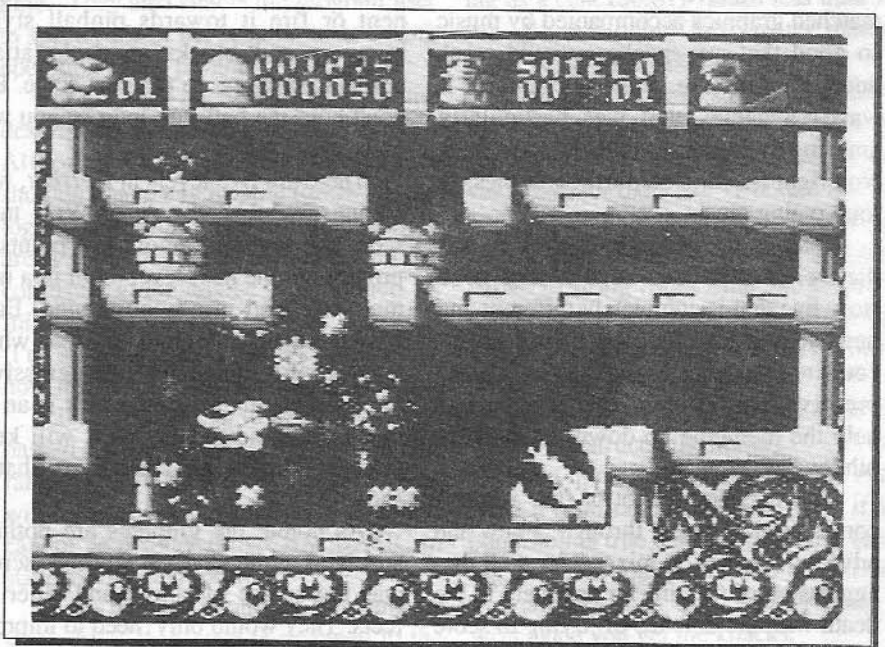
An important part of the screen to watch is a coloured graph in the top right hand corner. It gives an indication of how much time you have left to reach the end of the level and unload your cargo.

I rate this game nine out of ten, it is quite exceptional. Although it is not made up of totally fresh ideas, those used have been pushed to their limit for quality and play appeal. The senses are well looked after, in that the music and graphics are of an excellent standard. With high resolution, bright coloured

graphics and music that is pleasing to the ears.

Overall *Cybernoid II The Revenge* is recommended especially for all those who enjoy a good shoot 'em up adventure game. To really enjoy this game, you need to get into it and become actively involved. With the responsibility of retrieving the stolen cargo from the Federation Storage Depot, how could you refuse as a citizen of the Federation to take your place in the game all about the Federation? So try it you will enjoy *Cybernoid II The Revenge*. ■

Published by Hewson.  
Distributed by Ozi Soft (02)  
211 1266. RRP C64 cassette  
\$29.95, disk \$39.95





Clicked on Games  
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# Daley Thompson's Olympic Challenge

by Richard Silsby

Return to the hype and excitement that the Seoul Olympics brought into your lounge room. But with the *Daley Thompson Olympic Challenge* you have the ability, from the comfort of your own lounge room chair, to create your own world records. You become the lone competitor in an arena filled with cheering fans. Cheering you on to break the records set by the great Daley Thompson and put your own name in the record books.

Published by British game company, Ocean, this Olympic potpourri will prove itself as a true test of endurance for all you sporting minded computer games' wizards.

To begin your challenge, you have to undergo a series of weight lifting warm up exercises. This all takes place in the comfort of the Daley Thompson gymnasium. The purpose of this section is to gain bottles of Lucozade, which are awarded to you after attaining a certain power level. This represents extra energy that is available for you to use before an event to help your performance. This is a prerequisite for the challenge that is to come.

Now you are ready to test yourself against the clock, but first a small decision regarding footwear. You can choose from everything from a shoe called the Accelerator right down to a pair of scuffs.

Now to the challenge at hand, you have to combat the ten events found in the Olympic decathlon. You begin with the 100 metre sprint and progress through to the long jump, shot put, high jump, 400 metres, 110 metre hurdles, discus, pole vault, javelin and concluding with the 1500 meter endurance run.

Each event will present a different

problem for you to overcome. As I found, it will take a long time to master all the events in this game. But for some, it could be all too much, especially for those with a short attention span.

I was impressed with the graphics and the realistic effort that has to be put into the joystick to hurl you, the competitor, down the track. The sound effects during the events did add something to the game. Although the music played between events was anything but music.

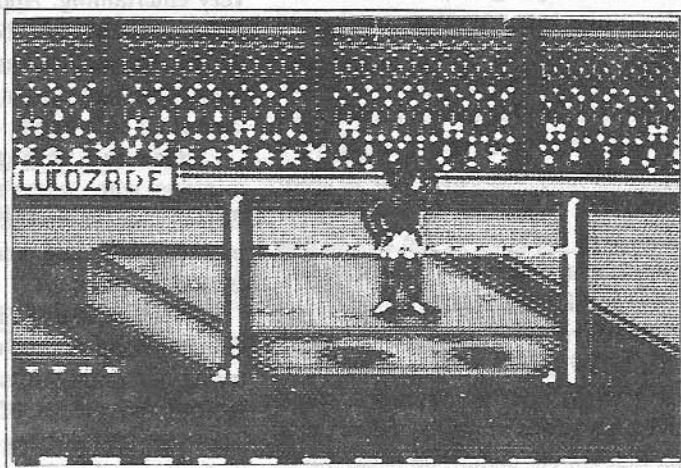
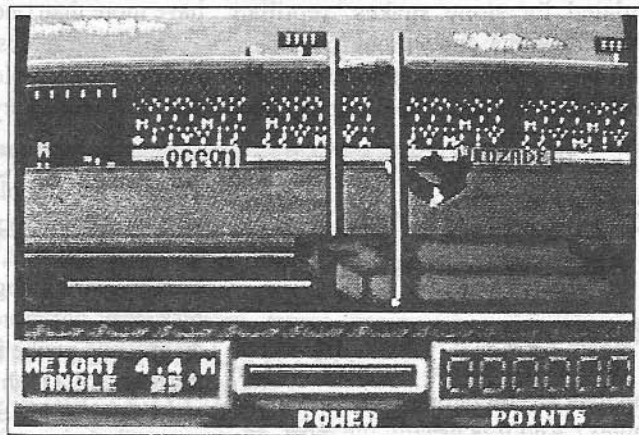
Presentation of the *Daley Thompson Olympic Challenge* is above average. There is a major drawback, which will send Daley and his Olympic circus to the bottom of the pile. The main problem is that you have to put an awful amount of physical effort into getting anywhere in this game. So if you are like me and suffer from RSI or a form of tennis elbow this is definitely not the game for convalescing by.

When you have recovered your composure, though, and wiped the beads of sweat from your eyes, you can stand proudly atop the dais with a sparkling gold medal around your neck. Accompa-

nied by the tunes of your national anthem ringing throughout the stadium (if you can get that far).

*Daley Thompson's Olympic Challenge* would be a reasonable choice for the "silly season" and afterward, for the price.

Distributed by Ozi Soft (02)  
211 1266 C64 cassette  
\$24.95 disk \$33.95  
Amiga \$58.29





# Cosmic Relief

by Andrew Baines

A MIX between adventure and action games, *Cosmic Relief* is very much in a class of its own. Its style and presentation are both lighthearted and fun without being cheap, and the high quality graphics and sound add to the atmosphere of enjoyment and pleasure.

The story goes as follows - Professor Renegade predicted 40 years ago that an asteroid would come and destroy the Earth, but no one wanted to believe him. Now that scientists have seen the light (or the asteroid), the world needs the good old Prof to make an asteroid deflector, and guess who's been chosen to find the old Renegade?

The Professor has hidden himself away in the Tibetan ranges, which is populated by stone snakes, reptilian birds, acid storms, and various other hazards. You may choose a famous explorer from England, France, Germany, Japan

or the USA.

*Cosmic Relief* is, as the name implies, entertaining. Even the manual is full of puns, jokes and the like, and they are not clichéd. The game also comes with a cheat map.

But, as the manual states, "If you look at this [the map], it means you've given up. You're a failure. You'll succeed at nothing in life and will most likely end up selling pencils, collecting aluminium cans, or becoming a journalist."

Undeterred, I opened the map, to find all the necessary hints to play the game. How, for instance, could anyone learn by chance that a scroll is a source of hot air?

The man is easily controlled, and items picked up along the way are easily passed on to native bearers. Using these items, however, is something different again, and this is where the hint sheet is essential, especially since some items have more than one function.

In the graphics department, *Cosmic Relief* is a champion. Colour and detail are built into every aspect of the game,

and the animation is excellent. Backgrounds are alive with colour and pattern, and music and sound are also high quality, with sound effects particularly appropriate in backing up the 'fun' aspect.

A good example is the result of losing all your lives, the asteroid comes down and makes a great mess of the planet. It too is lighthearted and makes you want to play again.

Overall, *Cosmic Relief* is a value for money product that will provide many hours of enjoyment. I suggest you don't use the map, as this allows more mystery and challenge, and will help the game to last longer. You'll want to play it more than once after completion.

Highly recommended as a cure for boredom. A definite must for all semi-adventurers, and should at least be considered by the hard-core types. ■

Published by **Datasoft**. Review copy from OziSoft (02) 211 1266. RRP Amiga \$49.95.

# Tetra Quest

by Andrew Baines

HAVE YOU ever noticed that the stories behind the games we play on our computers are becoming more and more complex? And it is usually the most enjoyable and simple games that score the most points for complex marketing ploys.

*Tetra Quest* is no exception. It is one of the most enjoyable games I have seen in a long time, and yet it employs a background story that sends you to sleep after the first two pages of the manual. The blurb on the back of the box is just as complex, and leaves you wondering why you would ever buy the thing.

These days, what good game can go without a few Greek gods, a phoenix, a set of "Games", some mutations, some oil and a few drops of acid, coupled with a disk that simply cannot be backed-up? *Tetra Quest* includes all of these (quite unnecessarily), and if you weren't told

about them, the playability of the game would probably increase.

To be positive, *Tetra Quest* is a brilliantly fast loading program. Insert the disk, wait not more than a few blinks of an eye, and you're ready to go. Sound and music are of a high standard, and graphics are colourful and entertaining.

The manual is informative, but not very entertaining. Apparently, the First Galactic Games are about to begin. Then the message arrives that the six Phoenix Medallions are missing, and the Games cannot go on without them.

Stolen by a nasty group of TetraDominions who weren't invited to the Games, they've been split into too many pieces to calculate quickly and scattered around the place.

Aliens, acid and oil slicks, mutating deflectors and various other creatures are trying desperately to stop you from collecting the pieces of the medallions. There are four screens to a level (spacily named a 'quadrant'), and one piece of medallion per quadrant. The basic idea is to read the manual to find out more.

Game play is very enjoyable. The combined tasks of shooting, manoeuvring around the screens, placing deflectors and planning your energy levels make *Tetra Quest* a top game.

The manual is a little over the top story-wise, but supplies all of the information about the control of the game so that you are left with no questions and are ready to dive straight in. Graphics are original and provide the necessary backdrop of movement and colour.

The grids are very challenging and careful planning is needed to make sure each screen is successfully completed. Sound and music are a little repetitive, but at least they are original.

*Tetra Quest* is a game for the adventure-shoot-'em-up freaks: people who enjoy a quality combination that will provide hours of game play without becoming boring. ■

Published by **Microdeal**. Distributed by OziSoft (02) 211 1266, RRP Amiga \$59.95



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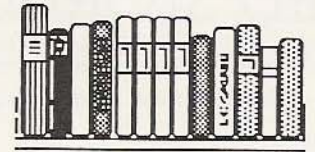
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# RED STORM RISING

A review by Eric Holroyd

**M**icroprose, publishers of *Gunship - Pirates - Airborne Ranger - F19 Stealth Fighter* etc, have excelled themselves with this one. I believe that it's their best one to date, and if you enjoyed the others you need read no further, just dash out and get your copy of *Red Storm Rising* straightaway. For newcomers to the genre I'll tell you what it's about.

Firstly, the package is very well-presented, with a 108-page manual, a double-sided disk and a keyboard overlay. The manual gives a rundown on submarine warfare in general, as well as taking you forward in time to 1996 (other timeframes are available also) to see how the world situation is developing.

All of this is (supposedly) fiction and runs according to Tom Clancy, the author of the book on which this computer simulation is based. He also wrote *The Hunt for Red October* which came out as a submarine computer simulation/game

too.

The manual has three main sections: Part 1 contains instructions for all controls and displays and is used in conjunction with the keyboard overlay, which tells which of your 64's keys does what in relation to controlling your vessel and its weapons. So many of the commands are keyboard controlled that I found myself referring constantly to the overlay which is an absolute necessity.

Part 2 covers submarine warfare tricks and tactics and teaches you some of the subtle moves. Part 3 is really the reference section and has much background data on the various vessels and weapons you'll encounter.

There's a nice bit of atmosphere-setting with the all-red title screen, which has an enemy sub sailing around whilst the letters of the title are forming. Some sinister background music is playing whilst all this happens, and then you get a screen of "commercials"

for the aforesaid four previous Microprose simulations which is worthy of a mention in itself.

It's a little like some of those CompuNet "demos" done by European hackers, as it has a four-way split screen with a bit of each game running in each section. Now comes a menu choice to start a new game, resume a saved game or format a disk for saving your game to. Then there's a ship recognition test where you have to identify a vessel from a very nicely drawn graphic.

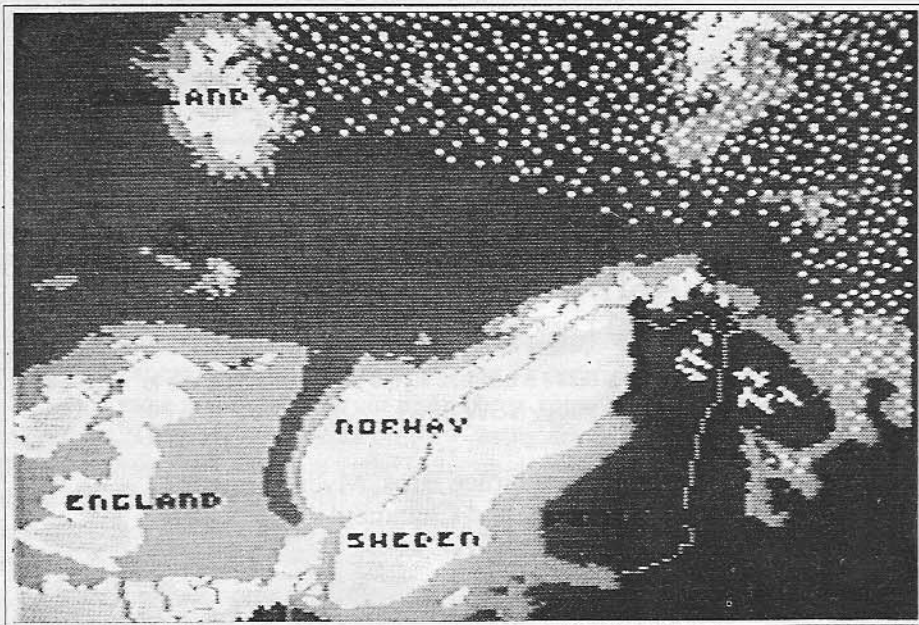
Match it against the pictures in Part 3 of the manual then enter your own name and if you successfully identify it you're off on your mission to save the world from the Russian menace. (If you don't identify it you'll go back for more training so read the manual.)

## Holy Loch Base

First stop in your battle is your base in Scotland, the Holy Loch, where you'll choose your actual vessel from another screen menu. All the various selections are done very easily by moving a highlighting bar with the cursor keys and pressing <Return> so none of it's a problem.

You have a good range of nuclear-attack submarines to choose from, or you may opt to have one allocated to you by the US Navy Supreme Commander by selecting the "?" icon. Attributes of the various vessels available are shown and it's up to you to choose a ship wisely after studying the manual.

Another menu-choice before you get down to some serious game play is the level at which you want to play. There's "Introductory" which is obviously for beginners (and you're encouraged to start here if it's your first time), "Normal" for





moderately-experienced submariners, "Serious" if you really know what you're about and "Ultimate" where you're really in it up to your eyeballs.

This selection screen tells you that in the Ultimate level "life can be brutal and short". The Ultimate challenge is, of course, to defeat the "Red Storm" of Russian Military Forces which is rising up to take over the West. There's a lot of work to be done before you're ready to tackle that, however.

To start the game play you also need to define what type of action you'll be fighting (Single enemy ship, Strike Fleet, World War 3 in the Atlantic etc) and in the case of a single enemy ship you choose its type. The reason for that last choice is that you know (from reading the manual, of course!) the enemy ship's attributes, ie what weapons it carries, its speed etc and you can give yourself a slight advantage by choosing an enemy with lesser weapons than yours.

During a training session you're taken into a full-on war situation and can blow up the enemy without sustaining any damage yourself, even when hit by enemy torpedoes. This beginner's scenario is to let you get a little conversant with your ship before being let loose for real.

It's a good idea to work through the beginner's level as there is so much to learn and become familiar with. The weaponry is extremely sophisticated and complex and to get the best from the game you need to learn the ins and outs of all the weapons.

Navigation is an art in itself (just ask anyone who's visited Canberra!) and you'll need to master this aspect too. After all, you are the submarine commander and the buck stops with you! If you put the sub in the wrong place at the right time you and all your hundred or so crew are gone, so make sure you're fully conversant with navigation before going to war.

## Norwegian Sea

As most of the fighting takes place in the cold waters of the Norwegian Sea

you'll also encounter icebergs and thick pack ice. These obstacles add to your problems as you need to get through, under or around the ice to engage the enemy, which of course could be using the ice as a radar screen and laying in waiting for you. Be aware of all this and don't join the Titanic by running into an iceberg whilst concentrating on something else.

Screen displays of the action take the form of a split screen with the top section of just over half the screen showing good graphics of the battle and other events taking place. The bottom section has text (in a nice character set) telling what's happening etc. There are frequent messages from your superiors, COMSUBLANT and COMEASLANT too, in the form of very authentic-looking military memos.

These are complete with proper headings, Time/Date/Subject etc and are marked TOP SECRET in red. These are sometimes direct orders, sometimes advice, but you should interpret and act on them quickly before disaster strikes.

The menu screen for the different time-frames I mentioned earlier is quite interesting in itself. There are four periods in which you may choose to fight a battle: 1984, 1988, 1992 and 1996. Against each date is some info about "them & us"-ie in the first one the Russians are said to be "behind the West in technology, but the West has only limited submarine weapons".

In the next period the Russian technology has improved but at the same time the West has acquired the Tomahawk missile. By 1992 the Russians have got their first nuclear aircraft carrier whilst the West has equipped itself with Sealance missiles and Stinger masts.

In the last period the Russian Northern fleet has grown to enormous proportions whilst the US Navy now has the Seawolf submarine. Evaluating all of this intelligence is very interesting and you'll soon begin to think like a real submarine commander as a result of studying it.

# TASWORD 64

Tasword 64, the professional word processor for the Commodore 64 computer. With 80 character per line display, what you see on the screen is what you get in your print out.

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Price

Cassette \$43.00  
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# TAS-SIGN 64

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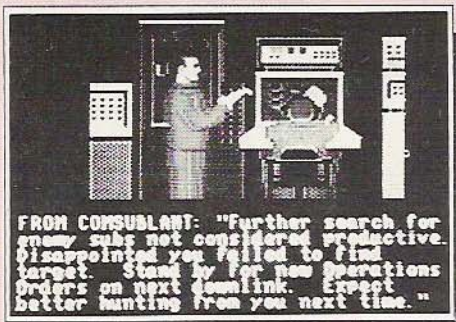
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Commodore and Amiga Review 27





This is much more than a game. It's a very lifelike simulation of the life and death affair of a fighting submarine detecting an enemy ship, stalking it by stealth and finally engaging it in battle, hopefully to come out the winner.

It sounds pretty straightforward, but it's far from that. The enemy has all kinds of technology and weaponry too! "Active" and "Passive" sonar, which is

much more powerful than World War 2 radar, robot torpedoes that think for themselves and hunt down their prey, sonar-equipped helicopters which can launch their own homing torpedoes and plenty more death-dealing stuff.

Those are all "surface" or airborne enemy units and to counter those you have your own surface-to-surface or surface-to-air missiles so with cunning and stealth you may be able to outwit and destroy them. Watch out though if you meet the ultimate enemy, another nuclear-attack submarine! The commander of this enemy sub is in his element, yours, and he has exactly the same mission as you do. Sink the enemy.

This is truly a battle royal and you'll need all your accumulated skills to come out of it alive. As with all battles, even

when you've won you still have to make it back to base without a torpedo up the rear so you may have to fight all the way home too.

As I said earlier, I feel that this is Microprose's best simulation ever and it's probably the most addictive of them all, too. It has all the ingredients to keep you on the edge of your seat and there's enough action and strategy to satisfy the most ardent gamer. I reckon a lot of midnight oil will be burnt before the Red Storm is conquered, and I liked it immensely. I'd rate it as the best simulation I've seen on any home computer to date.

Review copy by courtesy of **Questor**. C64 RRP \$49.95 (Cassette) \$59.95 (Disk)

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Clicked on Games  
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# Salamander

by Richard Silsby

C64

The council had been advertising for workers who could work a maximum of five hours a day to clear a way for the hyper galactic super planet bypass. It just so happens that this planet is dominated by the Salamander. But the plans have been on display in the basement of the local universe council. Who is this Salamander fellow to argue with the council?

I thought looking at the packet of *Salamander* that it would be fun to join the council boys for a yarn over a few coffee brands. So I signed up, unwrapped the game and read over the hours that I would have to work between breaks. The union promises at least five demarkation disputes in a week.

I was to be the driver for my crew, so I strapped myself into the seat, put on my helmet (as you can see I try to get the true experience of playing these games!) loaded up the game, and with an uneasy tension raised the joystick from the table and clasped it.

Then like a bolt of lightning from my landlord's tongue, it appeared on my screen. Like the arrow of Cupid, it was love at first sight.

So I pressed the fire button that first time and from then on it was too late to return to the normal life I had once led.

I was frozen into the world dominated by the Salamander, who seemed to hold the key to the life after Salamander. The Salamander was my opponent and to obtain the key that I needed to return to that life of wordprocessing and RSI I had to battle to the end, and finally defeat it.

But till this very day the Salamander still holds the key to the door barring my return to that life.

I must stop there for if I go on with my personal experience of this game, I am sure to transmit to you this disease

that I caught when this game crossed my desk!

This is the Konami version of *Salamander* taken from the arcade original.

In your quest to destroy the Salamander and free the world of its influence, you have four stages to overcome. You have three space ships that possess limited weaponry but have the capability to multiply their fire power four times.

Each of the four levels is made up of different types of terrain and opponents. These range from flying through a cavern with rock-lined walls, to shooting your way out of a solid wall which has the ability to rebuild itself—definitely no advantage to you. All hold their own amount of danger and difficulty, so as to make playing this game a real adventure.

After you have successfully completed a stage by manoeuvring and shooting your way through the maze and barrage of weaponry put up for the Salamander's protection, you come up against a large and very powerful enemy who must be destroyed before you can continue your quest. This is well designed to catch many Salamander cadets out when they put up their feet and relax at the end of a stage and have to pay the consequences.

At the end of your four stage quest you come up against your final adversary, which is a huge brain which controls the Salamander's domain. If you defeat this opponent you become freed from the effects of the Salamander.

The instructions gave some timely words of advice when they said, "To beat the Salamander you will require cunning, dexterity and maybe a little luck - but always remember - who knows what is around the corner." I would add that you also need patience so as never to make a rash move of the joy-

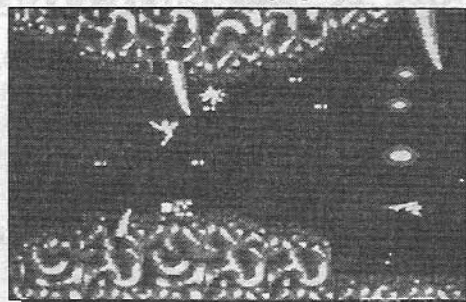
stick which may be hard to recover from. *Salamander* is an easy game to pick up but a hard game to master.

The graphics are one of the things that put *Salamander* up there with some of the all time best games. Bob Stevenson's work with the graphics has brought the C64 version of the *Salamander* very close to the arcade original. I was absolutely blown away with the detail, clarity and most of all the interesting effects, which added so much eye appeal to this game.

The ears are also well looked after in *Salamander*. Powerful spot effects along with adequate background sound make this an excellent game for the enjoyment and pleasure of the senses.

This game will live to be one of the most fun and enjoyable family games that will create healthy competition and stay the centre of attention for many months, even years. This is because there is plenty of variety and enough difficulty to maintain a lasting interest.

Overall I believe this is a great game which should be put at the top of the shopping list. To sum it up, it is the best shoot'em-up to date, with excellent presentation and progressive weaponry and sound along with graphics.



Published by **Imagine**,  
distributed by Ozi Soft  
(02) 211 1266. RRP C64  
cassette \$24.95 disc \$29.95



## Clicked on Games Clicked on Games Clicked on Games

# Soccer Skills

by Andrew Baines

*Many new games have been released recently from various publishers. We thought a comparison between the different games that all follow a fairly constant theme would help you pick the best.*

All of the four soccer games reviewed here have their own unique elements that promise variation from one play to the next, but do not necessarily guarantee continued playability and interest over a longer period of time. These reviews are in order from best to worst.

## Football Manager 2

The idea behind this sequel (if it can be called a sequel) is the same as that of the original. You are the manager of a soccer team, organizing the finances of the club you choose, including the buying and selling of players and the sponsorship deals.

Selection of the team is also your job, and is actually fairly easy as the

skills and fitness of the players of both teams (yours and the opposition) are displayed prominently.

*Football Manager 2* is exactly what the packaging says - a complete rewrite. The whole user interface is different with a joystick being the only contact needed with the computer. Everything can be selected through it, no exceptions.

The disk version is fairly heavily protected, but the load time is short. There are other various improvements such as training sessions, improved graphics match, easier player transfer, and a large number of new moves that the players on the field can achieve. Each player on the field is identified by the selection process, and each performs to his statistics, so you can see each player's performance individually.

Graphics in the team selection and management sections are fair, but they're good enough to give the game an atmosphere of extreme playability and attrac-

tion. Otherwise you wouldn't want to play beyond the first round of matches.

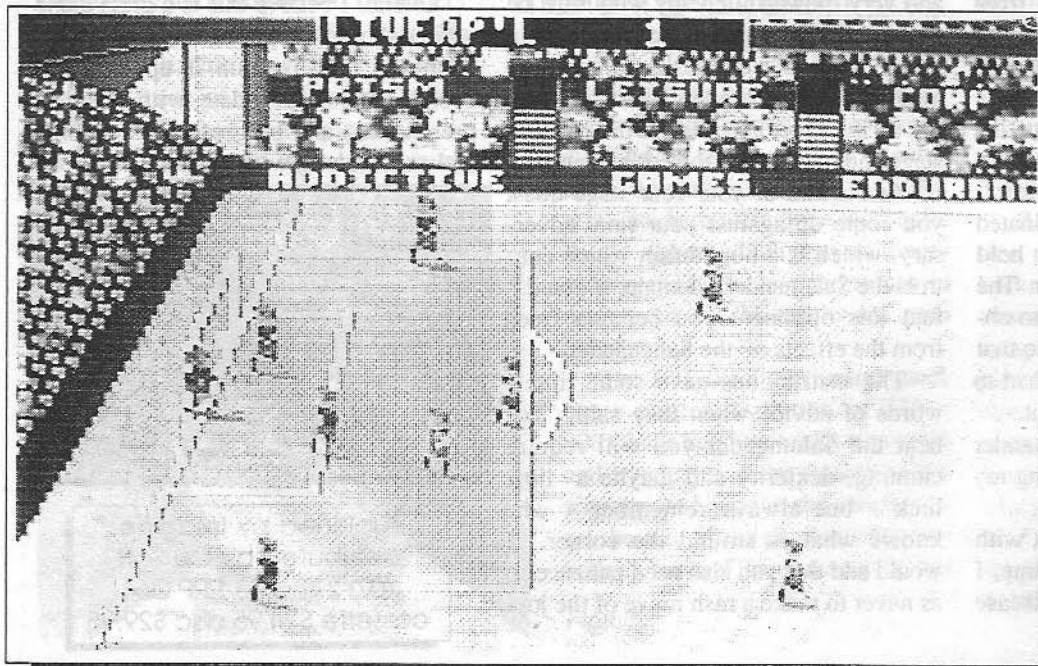
The actual games come up well, with graphics sometimes hard to define, but as the player doesn't control the action, this is less important than in other games. Sound effects are a little electronic, the crowd sound like static, the ball being kicked is almost a little beep (the ball, by the way, is square).

Picking the teams is very easy with the new system of placing players into their positions on the field. I do have one complaint, however. Comparative assessment between players is very difficult as they are not listed in a nice table, as they were in *Football Manager*. This is a minor complaint when viewed next to the overall quality and operation of the game.

After playing for a while, you may like to take the opportunity to save your game on a disk (or tape, if you have that version). The inclusion of this feature is a boon, as games can often go on indefinitely, especially as you get to know how to fully control the game.

The whole new look and feel of *Football Manager 2* gives the impression of a true winner, and definitely something you grow to enjoy more and more. This one receives the top spot out of all the others as a game that is essential for everyone, as it is a true classic.

Published by Addictive Software. Distributed by YPA Holdings (02) 899 2277 RRP Amiga \$43.95 C64 cass \$25.95 disk \$36.00





# Clicked on Games

## Roy of the Rovers

It's difficult to place this game in a class as it is a mixture of adventure and sport.

The Melchester Rovers five-a-side team's ground is about to be placed in the hands of property developers. A fund raising match to save their ground has been organized by the team, but four of the five-member team have been kidnapped. Roy Race, the only player left, has the job of finding his team members before the game begins. No prizes as to who the kidnappers are.

This game tries to appeal to a wider audience than normal, and I must say that I like it. Game play is very challenging but a little slow due to the distances Roy needs to cover to find clues.

Adventure is of the graphic variety, and the quality is really very good, considering the whole lot loads in from tape at once. The City of Melchester is quite large, and Roy must cover most of it to find the players.

This is an adventure to rival most adventures. Finding all the clues is very difficult. Any adventurer worth their salt

should love this one.

Graphics on start up are average because they use multicolour screens without the colours. The adventure graphics are fairly good, as are the game graphics. Sides are easily identified, as the colours chosen contrast sharply, unlike those of *International Football*.

The music is very joyful, and does keep the atmosphere going, but is very repetitive and verges on annoying at times. Keep the volume turned down, and it's not so much of a problem. Sound during the game is of the plastic variety, but I suppose fitting everything into 64k is a problem.

The tape version has an extremely long load time, you could fall asleep! Surely Gremlin have heard of *Turbo Tape* and the many other programs that speed up tape usage dramatically?

Soccer comes on after the adventure time has run out, or you can choose it at the beginning of the game, and skip the adventure all together. The players are well spread out, so that you can see what's going on, and the teams are in easy to define colours.

Inclusion of a large advertising board in place of the crowd may be cheating a little, but it does provide a good backdrop of movement and keeps the atmosphere going.

*Roy of the Rovers* is a good game, targeting those who like sport, and those who like the graphic adventure. It is well presented, and apart from the long load

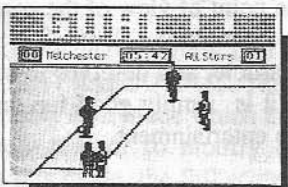
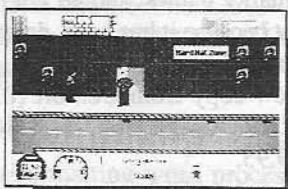
time from tape would have given *Football Manager 2* a run for its money.

Published by Gremlin. Review copy from OziSoft (02) 211 1266. RRP C64 cass \$29.95, disk \$39.95. Amiga (coming soon) \$69.95.

## Gary Lineker's Superskills

"Hot on the heels of the hugely successful SUPERSTAR SOCCER comes SUPERSKILLS, again endorsed by England's star striker."

That's what the manual insists, but somehow I think this one won't go too far. The whole game is a training program for the soccer enthusiast with no actual game of soccer. It seems to be modelled on the GAMES series, as you move from one set of exercises to the next, all within a set time period.



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# Clicked on Games

The exercises are - the Gym, which includes push ups, squat thrusts, weight training and monkey bars, and Field work which entails the slalom (dribbling, chipping, shooting), penalties, and ball juggling.

My initial impressions of this game went along the lines of this game is totally pathetic, how can you ever get to the next section? So, to be fair I dragged everyone I know who's good at *Winter Games* in and made them play it. No one could get past the second level. I suppose this provides plenty of challenge, but a little encouragement through success wouldn't go astray!

The graphics are very good, mainly because the sprites don't have to be scattered everywhere, they can be concentrated on the one player, making him look much more realistic. Sound is a little repetitive, but it does keep the atmosphere of exercising going.

*Superskills* is one of the worst games available if you have a delicate joystick. Mine all but died after the pushups, and it's a reasonably good one. If you have a really tough one, there's no problem, but if you don't, be prepared to buy a few spares.

The instructions fail miserably. They list the various exercises and their associated actions on each different version, but don't actually tell you what to do to complete the sections. Make sure you read them closely, as they also tend to be obscure and misleading.

While you're exercising, you're expected to take rests and drinks. If you don't, these will be forced upon you, and your time will be depleted, making it harder to complete the game.

*Gary Lineker's Superskills* is a good game for *Winter Games* lovers. It goes through many different and difficult exercises, all with good graphics and suitable atmosphere. If you expect to play soccer, think again, as this one doesn't

mention anything other than training.

But *Superskills* does provide a good level of entertainment and a great deal of satisfaction once a particular exercise is completed. Once again, however, the joystick killer aspect has to be stressed, if you value your sticks, don't even consider this one.

Published by Gremlin. Available soon from OziSoft (02) 211 1266.

## Peter Beardsley's International Football

In the spirit of Commodore's own soccer match (*International Soccer?*), Peter Beardsley's *International Football* is a very average soccer simulation. This is the least impressive of the four games I have reviewed this month. The whole atmosphere is shoddy, unexciting, and very boring.

Deciding which team you are on is the first obstacle to be overcome. The teams' colours are almost the same, and both blend well with the background colour, making it very difficult to determine which team a certain player is on.

Next, the problem is deciding which member of your team you are representing. This changes without notice, and you are left to try and figure out which set of sprites are responding to your joystick.

The sound track is joyful and does add to the atmosphere, but, once again, is too repetitive and quickly becomes annoying. Sound effects are also a little draining - this detracts from the game.

The graphics are very average, and definition is poor. To be honest, the players look like they were generated by a computer with only a few pixels to the whole screen. They are very block-like and unrealistic. The goalkeeper looks like he forgot to change for the game after going scuba-diving.

Not quite the article. This is, after

all, supposed to be a simulation. Background graphics do move quickly, however, though this tends to be very jumpy when the screen is scrolling at a medium speed. The crowd is obviously excited - it doesn't change, and the same man seems to be at several different spots along the way.

The hype that surrounds this game (I should call it effective marketing) extends from the advertising boards at the edge of the ground to the "free" Peter Beardsley badge and full-size poster, both actually adding to the cost of the game without providing a better game. I suppose the poster could be hung over the computer and the badge worn while playing, but this hardly gives the game the entertainment aspect that it surely lacks.

*International Football* is also a joystick killer. This results from not knowing which player you represent, and also the way the game forces you to control your man, once found.

*Peter Beardsley's International Football* is one to stay away from. It is clumsy, boring and in today's market of higher quality games, should not be offered, but because it has been, deserves to be left on the shelf.

Review copy from OziSoft (02) 211 1266. RRP Amiga \$69.95, C64 disk only \$39.95.

The prize undoubtedly goes to *Football Manager 2*, with *Roy of the Rovers* coming a fair second, and the other two not really of the high standard required of today's games.

For an excellent game of soccer (or football for the purists), the only one to consider is *Roy of the Rovers*, and you get some adventure thrown in as well. From the point of view of the coach and selection committee, *Football Manager 2* is the article, and deserves to succeed because it is simply good fun and provides top entertainment. ■



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## Using the new 1.3 CLI Shell and Newcon:

by Tim Strachan

A big improvement in 1.3 is the existence of the SHELL, a term that describes software that wraps itself around the CLI to give more features, as described below. Note that you start up a new SHELL by either double-clicking on the SHELL icon, or by entering NEWSHELL in the CLI (See NEW COMMANDS).

In order to take advantage of the features of the SHELL, you must MOUNT NEWCON: (the new CONSOLE HANDLER) and make SHELL-SEG in the L directory RESIDENT (as happens in 1.3's default startup-sequence). If you don't make SHELL-SEG resident, you'll get a new CLI window rather than a new SHELL, and if NEWCON: has not been MOUNTed then NEWSHELL will use the old CON: window.

### Features of the new shell

● **COMMAND LINE EDITING** - if you make a typing mistake or change your mind while typing, rather than deleting all you've typed, you can use the ARROW keys to move back over the line, make your correction and hit RETURN. SHIFT-LEFT ARROW (or CTRL-A) and SHIFT-RIGHT ARROW (or CTRL-Z) will take you to the beginning or end of the line in one jump. Other editing commands are:

- The DEL key: deletes the character to the right of cursor
- The BACKSPACE key: delete the character to the left of cursor
- CTRL-K : delete from the cursor to the end of the line
- CTRL-U : delete from the cursor to

the start of the line

- CTRL-X : delete the entire line
- CTRL-W : move cursor to the next tab stop

● **HISTORY** - Another very useful feature which allows you to recall previous commands used. Just use the UP arrow to recall previous commands one at a time, which can then be re-used or edited then used. To find a specific command, type the first part of the line and then press SHIFT and the UP arrow (or CTRL-R). Having moved up with the UP arrow key, you can then move back down with the DOWN arrow key. Or you can move straight to the bottom of the history of commands by pressing both SHIFT and DOWN arrow (or CTRL-B) - you'll then have a blank line ready for a command.

● **ALIAS** - Another useful feature which lets you make shortcuts for yourself with commonly used CLI commands. The format is:

ALIAS <alias name> <string> where <alias name> is the short form you give and which you'll use in future; <string> is the full text of the command.

For example ALIAS L1 "list df1:" will let you simply type L1 whenever you want to get a listing of df1:. You can use an ALIAS as part of your command line - if you entered ALIAS d1 "dir df1:" and then entered d1 opt a the system would understand dir df1: opt a

To be able to substitute filenames in an alias, include Square Brackets ([]) in the alias. E.g. ALIAS DA "dir [] opt a" will allow you to substitute any drive name or directory, as follows: DA df1: will be read by the system as DIR DF1: OPT A

Other features:

- Typing ALIAS by itself lists all the current aliases

- Remove an ALIAS by typing ALIAS <alias name> only

- Note that aliases are linked specifically to particular SHELLs, so if you create a new SHELL, your previous ALIASES won't operate. But since the Batch File s:Shell-Startup is automatically executed each time you open a new SHELL with the NEWSHELL command, you can edit that Batch File to add your frequently used ALIASES.

- If you create a Batch File which does some frequently used function you can use the PROTECT command to set the SCRIPT BIT on that file (see the description of the PROTECT command). Then the SHELL will execute that file as an EXECUTE batch file instead of as a command, and if you make the EXECUTE command RESIDENT (see description), and put the S directory where you keep Batch Files in the COMMAND PATH with the PATH command, you can rapidly execute all kinds of Batch Files. You can also use the ALIAS feature to give a short alias to the entire "EXECUTE MYBatchFile" command.

● **REDIRECTION** - Apart from the usual redirection capabilities, using the symbols "<" and ">" (without quotes, e.g. dir > prt: opt a), there is a further form using ">>", which APPENDS further information to an existing file. So entering dir > ram:DirTest dir >> ram:DirTest c: will first create a directory listing of the current directory under the name DIRTEST in RAM, and the next line will add the full listing of the C directory of the system disk to the bottom of that file.



### ● WSHHELL

Written by Bill Hawes, the man responsible for CONMAN (which is almost a shell in itself, and available as shareware on the Fish disks) this shell includes Conman 1.3, and provides the features mentioned above along with: Command aliases and abbreviations Extended Prompt string/window title options Concurrent Piping (ie the output of one process automatically becomes the input of the next, & so on)

Transparent support for REXX-language Macros Fixes the AmigaDOS Execute() function. It is designed to run with Conman, TxED, REXX, and the AmigaDOS Replacement Project commands.

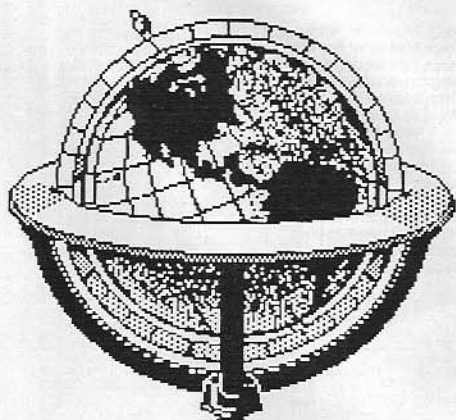
### ● TSHELL

More like a clone of the various UNIX shells, it adapts that style to the Amiga, and provides Unix-type filenames, with a syntax similar to C and a lot of powerful features useful for C programmers in particular.

Available for US\$50 from: Metran Technology, PO Box 890, West Oneonta, NY 13861, USA.

Anyone who's using the CLI regularly is wasting a lot of time and effort if not using a shell such as those above, or perhaps CONMAN or CSH, another Public Domain shell by Matt Dillon which quite a lot of people swear by.

You will find more details about 1.3 and AmigaDOS in general on MEGADISC, the AmigaDos manual-on-disk from MegaDisc. ■



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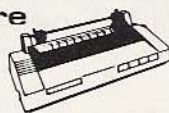
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## Word processing concepts and the Commodore 128

*Frank Paterson, a regular contributor to the Commodore Review, is now the proud owner of every C128 wordprocessor we could lay hands on. Next month he compares the lot of them, but first, here's an introductory article for all computer users. Frank will explain all those wordprocessor-speak terms that serve only to baffle new users. The article is especially slanted toward 8-Bit users, however Amiga owners will also find the material worth consideration.*

A computer by itself can't do much. No doubt you had that figured out by New Year. By then the family computer that came out of the closet on Christmas day, the one that "the kids can play a few games on, and I can teach myself a bit about computers" had been well and truly thrashed with *Karate Kid*, *Ace 2*, *Outrun* and what have you.

They'd had it for a week, it was your turn. There you were with your New Year's Day hangover. There it was, in all its glory, sitting there blinking READY. Ready for what? You typed your name, maybe your address, hit RETURN and got what? Syntax error!!

So you stopped hitting RETURN and just typed to fill the screen - maybe found the cursor keys and scrolled all your work off the screen to be lost forever! You couldn't print what you had typed - you couldn't even store it. Who needs computers anyway? Maybe it's just a games machine for the kids and that's all!

Fear not, frustrated parent. Even the simplest of computers can do more than play games. Any computer can execute a sequence of instructions, called a program, very quickly.

That's what it's designed to do, and

what's more, if the instructions are repetitive, it doesn't get bored! It stays efficient. Games are nothing more than specialized programs. So are the "useful" programs, like word processors, data bases and spreadsheets.

### What is a word processor?

One of the first "useful" things people like to do with a computer is write. But as we saw in the scenario above, there's more to it than switching the machine on and typing. There has to be a way to store the text in memory for immediate use, and also to store it somewhere permanently for later use. And, of course, there has to be a way to get it to a printer.

A word processing program makes the computer do all of those things and more, as we shall see. Word processors can be as simple or as complex as you like, but they all allow text to be entered, manipulated, "dressed up", stored permanently and printed. However, don't be put off by complexity.

A well-designed, full-featured program will allow simple word processing tasks to be undertaken with a minimum of effort and learning, while retaining the capacity to fill the advanced user's needs. Don't assume that quality demands exorbitant prices. It can, but it needn't.

Software publishers are trying to combat piracy. One of the best methods is to offer real value for money, and that they're doing.

Word processors can be categorized into two main groups - WYSIWYG and post-formatting.

WYSIWYG WYSIWYG, as has been explained many times, means "What You See Is What You Get". That is, text is formatted as you type it in, so that the appearance and layout of your text on

the screen is always a true copy of what will appear on paper at print time.

With a graphics oriented computer, the screen presentation can be particularly pleasing, with italics, bold, underline, super and subscripts, all appearing on screen as they will on paper. Additionally, on any computer whether graphics-capable or not, margins, pagination, indentation, text-centring - in fact, any feature not requiring the display of unusual characters, will also be shown properly on-screen as it will appear on paper.

WYSIWYG programs shape up really well on Commodore systems, even on those at the low end, because the computers are all colour and graphics oriented - from the humble 64 to the up-market Amiga series. I do a lot of word processing on Commodore's low-end machines, in particular the 128. Combine a good program with this computer's colour/graphics capabilities and 80 column screen and you have a word processing system that owes no-one an apology.

The graphics capability of the 80-column screen begs WYSIWYG display of the various capabilities commonly found in dot-matrix printers, while the colour display can be used to set up the working environment to suit the user's monitor and personal preference.

Some programs do not utilise the full capability of the 128's 80 column screen, and will not fully display enhancements such as underline, **bold**, or *italics* on the screen. Instead, the enhanced text may be highlighted in some fashion, say by reverse video, or by the display of the control codes used to generate the enhancement.

These programs are not truly WYSIWYG but you still get the main benefit, which is seeing your text being laid out on the screen as you type it in. Great for complex documents with lots of para-



graphing, indentation and paragraph numbering. *GeoWrite* is a good example of a full WYSIWYG program, while *WordStar*, which runs under the CPM operating system, is an example of partial WYSIWYG.

A full-featured WYSIWYG program requires either heaps of memory or two disk drives. Because these are often not available to low-end users on a budget, a different, more memory-efficient approach to the design of the program must be taken if a lot of features and power are to be included. The first alternative is the use of program overlays, in which only part of the program (the "core") is loaded into memory. The core calls the other parts from the disk as they are needed. Using this technique, a large and powerful program such as *WordStar* can be implemented on a small computer such as the 128. However, you get nothing in this life for nothing, and computing is no different.

The cost of the overlay approach is loss of program speed as the computer accesses the disk for the various program segments. The greater the number of overlays, the slower the program becomes, especially if you have a serial disk system like Commodore's.

This is where POST FORMATTING word processors play their part.

## Post formatting

Post-formatting word processors, as the name suggests, do not format text as it is entered, but rather wait until after text entry is finished or temporarily abandoned and an output command such as PRINT or DISPLAY is issued. As a result they are simpler and don't need the gross amounts of program code required by the WYSIWYGs. Overlays are usually eliminated and the program speeds up as a result.

Generally they employ two distinct modes, EDIT and OUTPUT. The default is invariably Edit mode which is used to enter new text or to modify existing files. In this mode, the full screen-width is used and no attempt is made by the program to show the effect of margins,

indentation or printer features such as bold, underline, etc.

While entering text, you should not try to make the document look right on the screen - the program will do all that when you issue an OUTPUT command such as PRINT or DISPLAY. The OUTPUT mode is used to print the text either on the screen, on disk or, most importantly, on paper. While in this mode you cannot edit your work, but if you print to the screen (DISPLAY), you can check the layout, then return to EDIT mode and revise any layout commands which are not giving the desired results.

In Edit mode, formatting and printer commands are entered as they are needed, just as in a WYSIWYG program, but instead of having an immediate on-screen effect, they usually appear as some form of symbol followed by some abbreviations and numbers. No action is yet taken on them. At print time, the program examines the symbols and following code and translates them into instructions which either the program itself or the printer can understand and respond to.

For example, let's say you set left and right margins of 10 and 70 respectively, and you're working on an 80 column screen display. Usually, your program will want some kind of special, non-printing character to tell it that the information which follows is to be acted upon, not printed - for example, a reversed asterisk. This would be followed by abbreviations for the con-

trol instructions, rather like this:-

\*lm10:rm70

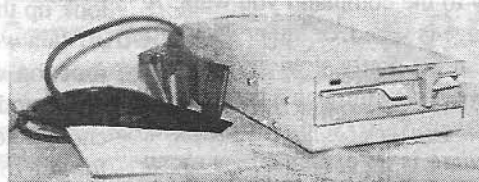
The formatted text-width is 60 columns, but in edit mode your on-screen text will still be a full 80 columns wide. The control code sequence "\*lm10:rm70" will be visible on screen and will not be interpreted.

In an output mode, such as print-to-screen (commonly called Display or Video Preview), the control codes will be intercepted by the program and the margin information incorporated into the screen display, so that now the text will be 60 columns wide and set 10 characters in from the left.

Other formatting commands and printer control codes will be treated in much the same way.

Again, some programs do not utilise the full capability of the 128's 80 column screen and will not fully display

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printer enhancements such as underline, bold, italics, etc. on the screen. As with the limited WYSIWYG programs, the enhanced text may be highlighted in some fashion, say by reverse video, or by the inclusion in the display of the control codes used to generate the enhancement.

There aren't many programs, either WYSIWYG or post-formatting, which can display ALL text enhancements. Of all the programs I looked at for this series only *Fontmaster* can display wide and condensed text. Some cannot display super and subscripts, and some cannot display any enhancements at all.

There is a further subdivision of program types which may affect your personal preference, and that is whether a program is menu-driven or command-driven. In a menu-driven program, each function of the program and printer is accessed via the choice of an item on a menu. That choice may lead to another menu, and that to another and so on, until the required command is reached.

The big advantage here is that you don't have to remember seemingly illogical keystrokes to get your desired result - hopefully the menu will have been carefully designed so that the choices you are required to make are logical and lead you intuitively to the command you want. A disadvantage is speed, or rather, lack of it - things can get pretty slow as you hunt and peck your way through a complicated menu system. *SuperScript* from Precision Software is an example of a menu-driven word processor.

In a command driven program, instructions are issued directly by certain keystrokes in combination with a series of master keys, such as Control, Escape, Run/Stop, Commodore key, etc. The advantage is speed - the disadvantage is that in a powerful program there are so many features to be accessed that inevitably, many keystroke combinations are illogical and easily forgotten.

Examples: SHIFT RUN/STOP for "go to end of text", ESCAPE SHIFT < for "Italics on". *Paperclip III* from Batteries Included is command driven. It runs

out of logical commands for some of its functions, but is otherwise so good and powerful I am prepared to forgive it for any little foibles it may contain! Likewise *WordStar*.

Probably the best system is a combination of commands and menus, and here, *SuperScript* shines. Under menu control, to go to the end of your document you would hit the F1 key to call up the main menu, then cursor across and highlight "Go". Another menu appears, listing choices of where in the document you may go.

Cursor across and highlight "End" and the program will respond and take you to the end of the document. Under command control, you would enter F1GE and obtain instant response. (F1 to call the main menu, G for Go, E for End.) There are also commands based on CONTROL plus one other key which give rapid, two-keystroke access to the most commonly used commands, rather than the three or four keystrokes often required by the menu structure.

### Help is important

Either system may be enhanced with a well designed Help function. Suppose you were stuck halfway through a command sequence or menu. Rather than look up the book, hit the HELP key.

In a well-designed program, the help function will know whereabouts in the command system you are and offer enough help on the command you're in for you to be able to carry on to completion. It should also allow you to back-track through a menu system and take a different branch, or abort the attempted command altogether.

*WordStar* sets the example here. If you delay more than three seconds between keystrokes during entry of a command sequence, *WordStar* will automatically display comprehensive help appropriate to the partially entered command.

### Technical terms it helps to know about

"Wordwrap" is a mysterious term you'll often encounter when dealing with

word processing or with any program which presents text on the screen, such as a communications program. It is merely the facility whereby a word won't be broken at the end of a line on the screen or page.

Instead the program works out if there's room on the line to place the word, and if there isn't it is "wrapped around" to the next line. Virtually all word processors use wordwrap and virtually all of them allow it to be turned on and off.

"Defaults" is another computer buzzword. It simply means the setting or series of settings the program will assume unless told otherwise. For example, many word processors default to a left margin setting of 10 and a right margin of 70, though of course, you can set them to anything you wish.

There are many other settings which the program must know, and which will contain default values so that the program will work, even if you forget about them.

In any dealings with text, communications and disk files, you will encounter the term ASCII, an acronym for "American Standard Code for Information Interchange". Pronounce it as "ass-key". If we all do that, that will be about the only thing standard about it!

Every computer manufacturer, including Commodore, has its own version of ASCII, and that has spawned an industry which does nothing but supply translators, called interfaces, which allow Brand X computer to talk to Brand Y printer and have the Queen's English print out on Brand Z paper. If you haven't got a printer yet and are intending to buy non-Commodore, you will need an interface, either as an accessory or built into the printer.

### Data formats

Different programs store their data on disk in different ways, depending on their need to store additional information such as formatting and graphics. To ensure transportability of the text in data files, word processing programs for Commo-



dore computers should be able to read and write sequential files in both Commodore and true ASCII, in addition to whatever method is used to store the graphics and formatting information.

Most of those looked at offer options to convert or translate their data into sequential files. I found a lot of variation in those files - some were Commodore ASCII, some were true ASCII, some contained line-feeds, some didn't. I found that while all programs would read SEQ files generated by other programs, there was usually a lot of editing needed to restore basic paragraphing, which is really what a sequential file should contain in the first place.

A good word processor should also have a print-to-disk option. When you select this in the output mode, text is formatted just as it would be if it were going to the printer, but is sent to the disk instead. The resultant file will be ASCII sequential, and you should be able to choose between Commodore ASCII and true ASCII.

The difference between an ASCII file that has been generated by print-to-disk and one that has been generated by a normal "save" is that in the print-to-disk file the text will be formatted. If, for example, you had selected a left margin of 10 and a right margin of 70, the margin control codes won't appear, but their effect will. Ten spaces will be written to the disk at the beginning of each line, and the line will be 60 characters long.

On the other hand, in a sequential save operation the commands (in this case the "\*l10:rm70"), are written to the disk along with your text, but they are not acted upon. Because they contain no formatting commands, just formatted text, print-to-disk files are used to export formatted text to other systems which use different formatting commands. For example, text formatted on *Superscript* can be sent to another computer using *WordStar* and the format will be retained in *WordStar*.

## Display

The 128 is a versatile computer and

can drive either a 40 or 80 column monitor, plus a TV - all three together if you're playing to an audience! If you're limited to one or the other, then make sure that the word processing software you choose works in the number of columns you're limited to. Most programs allow a choice, but there are exceptions.

## Summary

What should you look for in a word processor? Well, like just about any other purchase you might want to make, it depends on your needs. If your word processing will be limited to the occasional letter or straightforward use of your computer as a substitute for a typewriter, then a simple word processing program is what you need. You may not even have to pay for it. RUN and COMPUTE!, both Commodore magazines from USA, have published type-in word processors for both the 64 and the 128.

Having used both (*Runscript* and *Speedscript*, respectively) in the 64 versions which are really very good, I can see no reason why the 128 versions should not be just as good or better. Other magazines jumped on that bandwagon, but these two were the first.

I suggest they, and similar programs from other magazines, represent the best value for money of ANY word processor because they are yours for the cost of a magazine plus about six hours of your time. If you don't cost the time you spend on your hobby, that's about six dollars all up! If that's too much, try

a user group.

On the other hand, if you're a serious or even intermediate writer you will, at some time want some bells and whistles. Things like ASCII translation, full control over the printer driver, comprehensive range functions including column-move and column-delete, automatic horizontal and vertical addition in tables of figures, inbuilt calculators, mailmerge, integration with a database, fast cursor movement, telecommunications, inbuilt spell checker, automatic detection and use of RAM expansion, flexible use of disk drives.

The list is endless and limited only by the programmer's imagination and the price the market is prepared to pay.

Next month, we will look at ten word processor programs for the 128. A short description of the main features (or otherwise) of each will be given and the results summarized in a table.

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# Fine Print

by Eric Holroyd



HERE'S A NICE utility that put some of my favourite Amiga pictures onto paper in a quality that I'd never have thought possible. It was very easy to work with and the two comparison printouts here were done on the Star NX-1000. Figure 1 was done with *DeLuxe Paint*, Figure 2 with *Fine Print*.

The program works with a large range of dot matrix printers (set yours up by running *Fine Preferences* first) and makes printouts of almost any size. It adjusts the colours in any IFF picture using up to 32 colours into a range of "grey scale" colours which are pretty accurate representations of the original screen colours.

When printing the picture it "builds up" layers of ink on the paper to make the different grey shades, whereas other printing programs that I've tried out used several patterns of dots which were quite discernible under scrutiny.

*Fine Print* is a very flexible program which lets you set the degrees of Black/White/Grey via a display of 32 "sliders" at the top of the screen, pretty much like those on a graphic equalizer. Each slider represents one of the colour palettes of the original image. Your picture is displayed underneath the sliders and you can play around to your heart's content to

change the colour representations around.

The sliders actually control the amount of ink deposited on the paper for each colour and it's very interesting to see the screen image lighten and darken as you make your adjustments prior to printing.

When you've got it the way you want it, mouse up to the menu bar to select print (or use Amiga/P). You'll get a brief copy protection check at this point where you have to enter a word from the manual before the program proceeds. The printout naturally takes a little longer than a straight out hardcopy but the results are worth waiting for.

One of the nicest things about *Fine Print* is its ability to produce great results from a worn-out printer ribbon. Be-

"It 'builds up' layers of ink on the paper to make the different grey shades."

fore sending the image to the printer make your Ribbon Selection from New/Medium/Old on the menu and it automatically adjusts itself to that. The printouts here were done with quite an old ribbon which was no longer giving readable text printouts in draft mode yet the results are quite astonishing.

The *DeLuxe Paint* image used has a printer resolution of 320 x 200 (that's height x width in pixels) and by changing the figures in the appropriate boxes on the screen you set the size of the printout. The excellent manual says that you can

Figure 1



Figure 2



print "an image a fraction of an inch square or a hundred feet high" depending on what your requirements are. If you settle on a printout bigger than your paper then the program prints it in strips to be stuck together afterwards.

For large prints there's an "averaging" feature that improves the printouts even more but at the expense of longer printing time. The example of a ten foot printout is given in the manual, saying that it would take a week to print and would contain over 200,000,000 dots! It's recommended therefore that you limit your printouts to only (!) two feet high because of the printing time involved and the wear and tear on your printer when it's running hard for extended periods.

Because of the type of copy protection used it's easy to make yourself a backup copy of *Fine Print* and you're encouraged to do that, then put the original away for safety. You're also requested to please not give copies away to anybody else. I suggest you give them a sample printout done with *Fine Print* and let them go and buy their own copy. It's certainly a utility well worth buying.

*Fine Print*, RRP \$89. Review copy supplied by Computermate (02) 457-8118.



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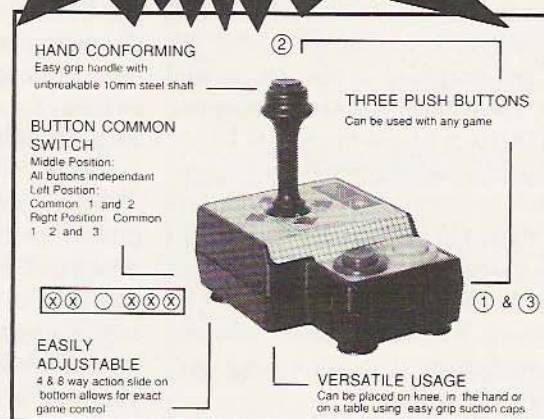
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# Star NX24-10 MultiFont Printer

A review by Eric Holroyd



I've been using Star printers for several years now and have previously written about the NX-10 (ACR April 87) and NX-1000 (ACR March 88), both of which are excellent 9-pin dot-matrix printers. I welcomed the chance to try out the NX24-10, a 24-pin printer, as I'd already heard good reports from various sources.

For those not familiar with the terminology, a dot-matrix printer uses a print head made up of pins or wires, the 9-pin units having 3 rows of 3 pins whilst the 24-pin units have (I think) 4 rows of 6 pins.

Each pin is programmed to "fire" through the printer ribbon to make its mark on the paper and of course the programming is such that different combinations of code (taken care of automatically by your software) produce different letters. Use a magnifying glass to examine a printout and you'll see how the characters are made up from dots.

Most printers are capable of upper and lower case, boldface print, underlining and italics, with the better printers offering features such as superscript and subscript (useful for properly expressing chemical formulae etc), backspacing (to overprint a letter already printed with another).

In the case of the NX24-10 there's a range of built-in "fonts" or typefaces too. These are - Courier, Orator, Prestige and Script, as well as the normal Draft quality.

Five "pitches" or type-sizes are selectable from the front panel: 10, 12, 15, 17 & 20 and all fonts can be used in all pitches as well as italicized.

I've talked in previous articles about the value of proportional printing and was pleased to see that it's available on this printer simply by pressing a switch on the front panel. This uses soft-touch switches for a variety of functions which are all explained fully in the spiral-bound manual.

Paper parking is a feature of this printer, as it is on the NX-1000 I mentioned earlier. What this means is that if you want to feed a single sheet of that special paper you've been saving up for job applications or love letters etc, then you press a switch combination to feed the tractor paper backwards and "park" it at the entrance so to speak.

You can then feed in the single sheet (s) for that special letter and switch back to tractor feed again when you're through. Much better than taking the paper right out.

There's an optional automatic sheet-feeder if you prefer to use cut, sheets and although I didn't use one with the NX24-10, I have done with other Star models and liked the idea.

This printer prints at 170 cps (characters per second) in draft Elite mode and 57 cps in Letter Quality Elite. This compares with 144 cps/36 cps on the NX-1000, and 120 cps/30 cps on the NX-10.

Down at the right front corner of the unit is a slot to take a RAM card, and here you may use an optional character card with extra fonts or a battery backup RAM card which can store several of your documents in its memory. This would be great for doing work at home then taking it to the office, for example.

Journalists could maybe use the idea for filing their stories. Just unplug the card, stick it in your shirt pocket (it's only a little larger than one of those business card calculators), then plug it into another printer with similar facilities to get a printout.

At the time of writing I'd been unable to get full details to report on but I believe the RAM card can also be used for storing downloaded fonts. This would really add to the variety and versatility and is worth finding out about.

There are many other features, including the facility to print in double height and even quadruple height characters. If your wordprocessor allows the definition of "special characters" by allocating a string to a single character (*Easy Script* and *Fleet System 4* both do this for instance) you can use Escape - 119 - 49, that's Chr\$(27) - Chr\$(119) - Chr\$(49), to turn on double height printing and Escape - 119 - 48 to return to normal print.

Quad height is done similarly and in fact the manual has an appendix of these and many other control codes. It's easy enough to follow and all these commands are simple enough to incorporate into your own programs for eye-catching printing effects.

The printer's capabilities include Outlined, Shadowed, and Outlined with Shadowed printing. Unfortunately, the book didn't say how this was done and I'm now wondering if it's a feature of the optional font card.

Another nice little feature that night owls will like is the "Quiet Mode". This cuts down on the noise made by the print head simply by doing the printing in two passes instead of one.

It really is much quieter and I recommend this for those 2am printing jobs which disturb the rest of the household. It's done at the expense of speed, of

(DRAFT)  
ABCDEFabcdef012345

(COURIER)  
ABCDEFabcdef012345  
ABCDEFabcdef012345

(PRESTIGE)  
ABCDEFabcdef012345  
ABCDEFabcdef012345

(ORATOR)  
ABCDEFABCDEF012345  
ABCDEFABCDEF012345

(SCRIPT)  
ABCDEFabcdef012345  
ABCDEFabcdef012345



course, but then there's always a tradeoff, isn't there?

I'd used the NX-10 with the office C-128 for general word-processing for quite some time so the first part of my testing was to hook up the NX24 to the 128 and see how it fared there. I paired it with the Xetec Super Graphics Senior interface to make the test the same as previous ones.

I tried it with the NX-10 driver and it worked OK, then I tried it with the Epson LQ-1500 driver (as recommended by the Star technicians) and it was OK with that one too. I was pleased with the way it worked with *Fleet System 4* (one of my three all-time favourite word processors) and I had it printing out Fleet documents in all the font styles and pitches in double quick time.

I'd previously said that FS4 could benefit from having a proportional print feature and I was able to give it just that by switching in the feature from the NX24-10's front panel. The results were good, proportional NLQ and quite acceptable for business and formal letters etc. In 64 mode I loaded up good old *Easy Script* and printed some stuff with that and got equally good results.

My other favorite WP is *Fontmaster 128*, which I consider to be probably the best thing ever written for that machine, and which I use whenever I want extra good eye-catching letterheads or invitations etc. This is because of the function which allows inclusion of graphics in the text and which makes the C-128 into quite a good little Desk Top Publisher.

I was somewhat disappointed with the results when using the NX24-10 with *Fontmaster* and it was then that I realised that without a proper printer driver to make the NX24-10 print graphics from commercial software it would revert to 9-pin mode. As the pins are not in the same configuration as a 9-pin printer the

results are not as good when printing graphics and graphic fonts such as those in *Fontmaster*.

In 64 mode I tried a *Print Shop* printout with similar results, and I'd have to say that for printing graphics on C-64 and C-128 the NX-10 does a little better job. However, for printing first-class formal business letters from other software the NX24-10 is hard to beat on those two machines. Horses for courses, you might say.

With the NX24-10 hooked up to the Amiga via the printer cable the

story was a little different. I found the correct printer driver on *Fine Print* reviewed in this issue, and was able to get it working properly with that utility. The printer drivers on *Fine Print* are all part of a single file and I'm not clever enough to extract something from within a file.

However, I printed out a sketch called "Cartoon", which *Fine Print* uses as a demo, with the Star NB24-10 driver which was the closest one and it worked fine. With the 24-pin driver graphics print out very well (and very quickly too!).

I suppose the bottom line is that it really depends on what you require from

a printer. If you're strictly a business user and use a non-graphics word processor you'll be thrilled with the way the NX24-10 does its stuff.

If you want to print a lot of graphics, be sure that the program you want to use with the printer can provide the correct driver. Come to think of it, there must be some printer drivers for 24-pin printers in the Public Domain and user groups should have access to them too. I believe there's a disk of Printer Drivers in the MegaDisk catalog so maybe Tim Strachan (02-959-3692) could help also.

Review unit furnished by Star Micro-nics (02)736-1144 RRP \$890.00

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# DeluxePrint II



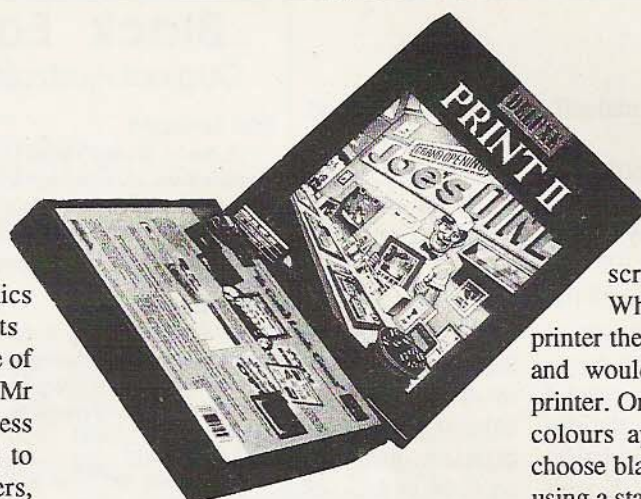
by Damian Disney

In the fine tradition of quality graphics programs from Electronic Arts comes *DeluxePrint II*. In the style of *DPaintII* and designed for use by Mr Joe Average to enhance his business and personal image, it enables you to make your own signs, labels, banners, letterheads, calendars, greeting cards or 4-tile signs.

The material for this is supplied on two disks, one the program material and fonts directory, the other artwork. On the art disk are contained the library of images, borders and background pictures that you can use to style your own designs. For added flexibility you can create designs on *DPaintII* and transfer them to the *DPrintII* library.

Although the format screens are arranged slightly differently, they all share the same common elements. A Page Palette of colours for the design; a Corner Sample to show the current icon, border, or text font and style; the Print Area [Page]; and buttons for selecting graphic elements and options.

The Page Palette contains 32 colours available for the current design. These can be altered with a slider control sys-



tem, similar to Prefs, altering RGB and HSV (Hue, Saturation, Value), making it possible to fully utilise the Amiga's 4096 colours.

After selecting a format you can then select a background colour, text style, border design and icons. Text styles are loaded from a font directory and contain many of the usual styles as well as some not so common. Alternatively, fonts can be loaded from other programs.

Text is added to the design one line at a time from a cursor box at the bottom of the page. After placing the text it can be moved, enlarged, flipped, shadowed etc. using the graphic options.

Icons are found under such headings as Baby Things, Office, Party, Travel, Religious and include up to nine appropriate designs. Over two dozen border designs are also included.

This is all very well, you say, on the

screen, but how does it print?

When I ran it through my Epson printer the results were quite impressive, and would be even more so on a colour printer. Only black prints as such, other colours appear as shades of grey, so choose black for your designs if you are using a standard printer.

A concise, easy to understand manual is provided that enables even beginners, like myself, to be proficient printers in just an hour or two. A few projects are also outlined for those in need of imagination.

Although maybe a little limited for those of us with a black and white printer, it could still be useful for adding a letterhead to otherwise ordinary correspondence. Useful too, for providing artwork for a printer, saving on their sometimes exorbitant prices for fairly ordinary artwork.

If you are the kind of person (extrovert) with an individual flair you could well find yourself adding to your joys by sending people whacky cards, loony letters and crazy calendars - or just to decorate your inner sanctuary?

Distributed by ECP (075) 96 3488.  
RRP \$149.96.

## Amiga Tricks & Tips - The Disk

By Andrew Baines

Basically, this disk contains all of the programs from the book, in the same sort of style as our disk magazines. There are few errors on the disk, and these were only due to the fact that I should have copied AmigaBASIC and all of the .BMAP files to the root directory of the disk.

No instructions were with the disk, not even a README file to explain that this must be done if you wish to avoid

disk swapping. Some programs also had errors because the directories' names had been changed and they hadn't. This is easily fixed, once AmigaBASIC comes up showing the exact error.

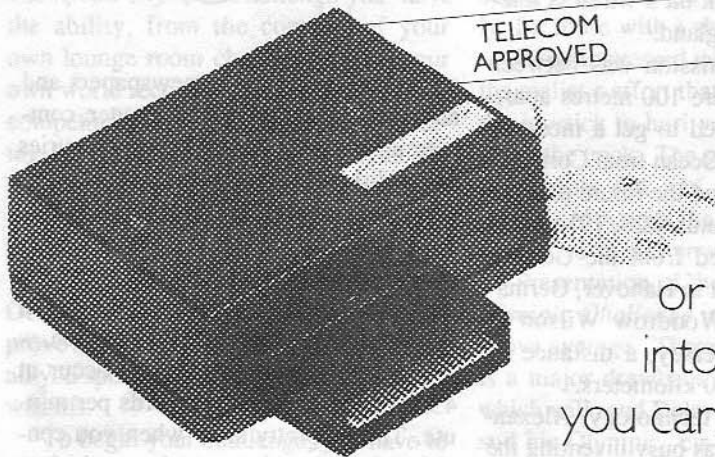
Overall, the book shows AmigaBASIC off well, with some of the most amazingly complex programs running in blindingly fast times - the graphics programs are a good example of this.

If you have bought the book, the disk is essential, as typing is too boring, and the book does have some typos. All of the programs run after AmigaBASIC and the .BMAP files are on the disk, and the problems with the directory names are sorted out.

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# Computer Radio Part II

by Tony Smith

**F**ollowing a good response from readers regarding the article on packet radio, our esteemed editor has asked me to do an update. Perhaps we should start with a back date and a quick look at the history of telecommunications.

The first practical telegraph was developed by Charles Wheatstone in England in the early 1800's. It was used for several years but failed to excite the public like the Morse Telegraph did.

In 1836, Morse had perfected a device for sending and receiving information over wires and on May 24, 1844 sent the first message from Washington D.C. to Alfred Vail in Baltimore Ohio over a telegraph line which had been financed by the government to a tune of \$30,000. The message was "What hath God wrought" and Vail immediately returned it.

Thomas Edison, a young telegraph operator, made many improvements to the Morse Telegraph including a system which allowed the sending of four messages at a time. One wonders what would have developed from fellows like Wheatstone, Morse and Edison had they been round to see what we are doing now with satellites, computers, colour fax, interactive videotext, paging systems and publishing etc.

## The printing telegraph

Henry Augustus Rowland invented the printing telegraph which could send eight messages at the same time, this machine worked not on dots and dashes but it reproduced the actual letter which was sent. Rowland's machine was very complicated but its fundamental principles were used as the basis for modern telegraphy.

The next step in development was the transmission of information without wires. Firstly by Guglielmo Marconi in 1890 with his patent on a wireless telegraph system in England.

His first transmission was between two buildings a mere 100 metres apart, by 1901 he managed to get a message across the Atlantic Ocean from Cornwall to Newfoundland and the future of wireless was assured. January 28, 1914 saw a message transmitted from the German emperor, William II in Hanover, Germany, to President Woodrow Wilson at Tuckerton, New Jersey, a distance of 3,600 miles or 6000 kilometers.

Parallel to this technology, Alexander Graham Bell was busy inventing the telephone and on March 10, 1876 the first intelligible words were spoken over this device "Mr. Watson, come here, I want you". By 1962 there were over 77 million phones in operation in the United States and that was twenty-seven years ago.

A two-way high frequency transatlantic radio telephone service was introduced in 1929 and the first microwave transmitter was opened between Cuba and the U.S.A. in 1957.

Telecommunications took a great leap into the future in 1960 with the launch of Echo 1, the world's first communications satellite. Telstar, the first privately owned earth satellite, which was launched in 1962 successfully relayed television, telephone messages, telegraph, radio, data and facsimile across the Atlantic ocean.

## Radio teletype

RTTY or radio teletype has been around for many years and uses a standard code called BAUDOT. Although the

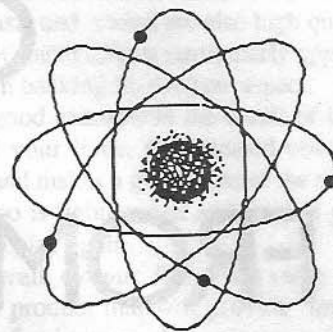
speed may vary, many newspapers and news services such as AAP Reuter, commercial stations in developing countries and radio amateurs or Hams still use it. The code consists of five data bits, a stop bit and a start bit, the various combinations available with this configuration allow the letters of the alphabet, a set of single numbers and some punctuation.

Most of the transmissions occur at 45.45 Baud or about 60 words per minute. This is pretty slow when you consider that the slowest phone modem speed is 300 Baud and you are flat out trying to reliably read it off paper at that speed! 9600 Baud is used a lot for radio packet transmissions and sometimes even higher speeds are used.

Nowadays, with the advent of computers it didn't take the boffins long to figure out that if you hooked a computer up to a radio, then the translations could be done for you a lot more quickly and a lot more reliably.

With the great mathematical ability provided by the mighty micro chip and some cleverly written software, we have the ability to send information huge distances, quickly and relatively cheaply and free from errors, thanks to check sum routines which only allow complete packets of information to be accepted by the listening computer.

In the next article I will look at a simple modem kit and maybe a short program which will illustrate just how simple it is to sort the data into manageable chunks.





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## Rounding and Formatting the Maths way Part II

by Chris Searle

**A** BASIC rounding routine only meets half of our programming needs. It is all too easy when writing a program to rely solely on PRINT, TAB and SPACE to output raw numerical data generated by the program or entered by the operator.

As we have seen, this invariably results in a messy, inconsistent display which can be very hard to read. What we want is to output our data in a standardized preset format with the decimal points in line and all the numbers justified.

PROGRAM 1 attempts to do this by the 'maths' approach and is based on the INT technique discussed previously. Lines 500 to 630 are the 'engine room' of the program. These lines may be incorporated into your programs as a general purpose rounding and formatting subroutine called by a GOSUB from the main program flow (as shown by line 150).

To function correctly, the subroutine requires values to be passed to it in the numerical variables N, DP and FL together with a string of spaces in the string variable FL\$, a string of 'f' characters in the string variable FF\$ and a string of 'r' characters in the string variable FR\$. N holds the floating point constant to be rounded; DP holds the number of decimal places to which that value is to be rounded; and FL is the length of the formatted string to contain the rounded value generated by the routine.

This value is returned to the main program flow in the string variable NS\$. If there is a format error or range error, a string of 'f' or 'r' characters is returned in NS\$ for display in lieu of a value (PRINT USING displays a string of asterisk symbols (\*) in such cases - you can do likewise if you wish).

The values to be represented by the

variables DP and FL together with the number of characters to be held in the string variables FL\$, FF\$ and FR\$ may be assigned at initialization of the program and remain constant whilst the program is running (eg. where all values are to be rounded to a set number of decimals and padded with spaces to a set string length).

Depending on your programming needs, these values could be reset during the program operation by the program itself or by input from the operator as required (as shown by lines 100 to 140).

The beauty of writing subroutines with this degree of inbuilt flexibility is that they can be used in a range of programming applications to generate data in varying forms without having to rewrite or modify the subroutine each time. They also enable the program user to specify his or her requirements during operation of the program.

For all those interested, a line by line description of the subroutine follows. Although experienced programmers shouldn't have any trouble following the logic and syntax of this subroutine, there are a few tricky bits which might be confusing to the novice programmer. A full explanation of these bits is given (I'm still not sure I fully comprehend how it all hangs together and I wrote it!)

LINE 500 checks to see if the value passed to the subroutine is within the range -999999999 to 999999999 (you will recall that values outside this range cannot be displayed by CBM BASIC in standard notation form).

If the number is outside this range a string of 'r' characters is assigned to the variable NS\$. When displayed, this will warn the operator that a number generated by the program or input by the operator is out of range for display in standard

notation.

LINE 510 (I like this line!)

When rounding numbers to whole values with no decimal places displayed, formatting problems can be caused by small values less than 1 or -1 but greater than or equal to .5 or -.5. Also, as we have seen, CBM BASIC will convert any value smaller than .01 or -.01 to scientific notation (some dialects of BASIC, such as MSBASIC version 5.28 mentioned previously, are even less flexible in this respect).

This can severely restrict the utility of a computational program which would be expected to generate many small values (eg. surveying and engineering applications). If the cents are to count, financial applications would be similarly restricted in rounding up to and displaying as a cent (\$0.01) values less than .01 (or -.01 if a debit) but greater than or equal to .005 (or -.005).

Line 510 overcomes these difficulties by a sleight of hand trick to fool the computer. The integer 1 is added to any value smaller than 1 or -1 before the value is passed on to be rounded. After this bogus value has been rounded and converted to string form, Line 580 strips off the 1 by string slicing. The modified true string value is then formatted for return by the subroutine in NS\$.

To avoid having to use multiple IF-THEN constructs, the coding of this line relies on the fact that CBM BASIC evaluates a conditional statement to -1 if the condition is true and 0 if it is false (coding like this sometimes can be difficult to read but it is surprisingly easy to write once you get the knack).

The number to be rounded (N) is first converted to its absolute (positive) form by the ABS function to overcome problems with negative numbers. If the val-



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ue is less than 1, the conditional statement  $(ABS(N)<1)$  will be evaluated to 1.

We then need to subtract (not add) the -1 to the absolute value of N ( $ABS(N)$ ) to increase that value by 1. In the event that the absolute value of N is equal to or greater than 1, then 0 will be subtracted from this value leaving it unchanged (which is what we want).

To restore the value to its true sign it is then multiplied by the statement  $SGN(N)$  (which as we have seen returns 1 if the sign is positive; -1 if negative and 0 if the number is 0). If the number passed to the subroutine was in fact 0 this would cause our modified value to be evaluated to 0, not 1 (which isn't what we want).

The conditional statement  $(N=0)$  checks for this and if true will return a value of -1. Subtracting -1 from the 0

returned by  $SGN(N)$  gives us the 1 we need.

LINE 520 determines the position of the decimal point in the number to be rounded and holds this information in the variable IP (integer places).

The coding is a maths approach to the problem and avoids having to read the number with a FOR-NEXT loop. This technique is based on the fact that the integer of any logarithm with base 10 is one less than the number of digits before the decimal point. Adding 3 to the integer value produced by this technique will give us the total of the number of digits to the left of the decimal point; a space for the sign and a space for the decimal point.

An alternative approach would be to use the following string handling technique to determine the place of the deci-

mal point -

$IP=LEN(STR$(INT(ABS(NN))))+1*In1$

The maths approach arguably has more style (an expression used by programmers to justify using an obscure and often machine specific solution when a straightforward BASIC approach would suffice). If you care to run time tests on the two techniques you will find that the string technique executes nearly twice as fast! (so much for style!!).

LINE 530 checks that the length of the number after being rounded will not exceed the number of assigned format spaces. If so, a string of 'f' characters is returned by the subroutine in  $NS$ .

When setting the format length (FL) a character space will be required for each integer digit, plus a space for the sign of

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the number (+ or -). If the number is to be rounded and displayed with decimal places, then a space also will be needed for the decimal point, together with spaces for the assigned number of decimal places (DP).

For example, displaying numbers less than 10000 rounded to two decimal places would need a minimum format length of nine characters.

The conditional statement (DP=0) will evaluate to -1 if the number is to be rounded to a whole number (viz. when DP has been set to 0). Subtracting 1 from the value held in IP will thus give the number of integer digits plus a space for the sign of the number but with no additional space for the decimal point.

Line 540 rounds up the number to the

assigned decimal place or to a whole number if no decimals are required.

The easiest way to explain how this line works is to describe how it manipulates a number passed from Line 530, say NN= -123.4567, for rounding to two decimals (viz. DP=2).

The statement  $10^{DP}$  (ie.  $10^2$ ) equates to 100 and .5 divided by 100 gives 0.005. ABS(NN) converts -123.4567 to its positive form (ie. 123.4567) and adding 0.005 increases the number to 123.4617. Multiplying this value by 100 ( $10^{DP}$ ) moves the decimal point two places to the right (12346.17). INT (Integer) strips off the decimals leaving 12346.

Dividing this value by 100 ( $10^{DP}$ ) moves the decimal point back two places

to the left (123.46). When 123.46 is multiplied by SGN(NN) the negative sign removed by the ABS function is then restored leaving the number -123.46 to be passed on in the variable NN.

LINE 560 adds any missing trailing zeros (and if necessary the decimal point) to the fractional part of the rounded value passed by line 540 in the event that decimal places are required, viz. DP>0. This is necessary to achieve a consistent display and to ensure that the decimal points will be aligned in any tabulation of numbers generated from the program.

To avoid having to make tests of the number of decimal digits in the value passed by Line 540, the coding of this line uses the simple expedient of adding to that value a decimal fraction beginning with as many zeros as the number of decimal places required.

Take for example the number 123 passed to this Line in NN. If two decimal places are to be required (viz. DP=2), the equation  $10^{-(DP+1)}$  will evaluate to  $10^{-3}$ , which is .001 in standard notation. As NN is positive in this case, the sign of .001 remains unchanged after being multiplied by SGN(NN).

Adding the decimal fraction to 123 produces the number 123.001. Line 570 then strips off the trailing decimal digit 1 leaving the number in the form 123.00 (pretty neat!).

If the number NN is negative, SGN(NN) will evaluate to -1. This ensures that negative numbers are increased, not decreased, by the fractional component to be added by this Line (eg. -123 + -.001 equals -123.001).

LINE 570 slices off the trailing decimal digit 1 added by Line 560 by simple string manipulation. The modified (true) value is then passed on in

## Program 1

```
1 REM ** EEROUNDING ROUTINE - MATHS APPROACHEF ** 10 PRINT CHR$(
(147)
100 INPUT"NO. OF DECIMAL PLACES";DP
110 INPUT"FORMAT LENGTH (2-10)";FL
120 INPUT"ENTER NUMBER";N
130 FL$=LEFT$(" ",FL)
140 FF$=LEFT$("FFFFFFFF",FL):FR$=LEFT$("RRRRRRRRRR",FL)
150 GOSUB 500
199 :
200 PRINT N$:PRINT
210 GET KE$:IF KE$="" THEN 210
220 GOTO 100
499 :
EE
500 IF ABS(N)>999999999 THEN N$=FR$:RETURN:REM range errorEE
510 NN=(ABS(N)-(ABS(N)<1))*(SGN(N)-(N=0))
520 IP=INT(LOG(ABS(NN))/LOG(10))+3
530 IF IP+(DP=0)+DP>FL THEN N$=FF$:RETURN:REM format errorEE
540 NN=(INT((ABS(NN)+(0.5/10^DP))*10^DP)/10^DP)*SGN(NN)
560 NN=NN+10^-(DP+1)*SGN(NN)
570 N$=LEFT$(STR$(NN),LEN(STR$(NN))-1+(DP=0))
580 IF ABS(N)<1 THEN N$=LEFT$(N$,1)+MID$(STR$(VAL(MID$(N$,2,1))-1),2)+MID$(
N$,3)
590 IF ABS(VAL(N$))<ABS(N)-.5 THEN N$=FR$:RETURN:REM range errorEE
600 IF LEN(N$)>FL THEN N$=FF$:RETURN:REM format errorEE
610 IF VAL(N$)=0 THEN N$="0"
620 N$=LEFT$(FL$,FL-LEN(N$))+N$
630 RETURN
```



Robbeory  
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five levels of... excellent. This  
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string form in the string variable N\$.

In the event that no decimals are required (ie. DP=0), any decimal point also will be stripped off (we don't want whole numbers displayed with a trailing decimal point). This is achieved by the conditional statement (DP=0) which, as we have seen, will evaluate to -1 if the condition is true.

LINE 580 strips off the integer digit 1 if added by line 510. It does this by removing the second character space from the string N\$ (which will be the digit 1).

As the modified number represented by N\$ is now in string form, CBM BASIC doesn't care if the value is less

than .01 or -.01. It will happily display the value as a string without first converting to scientific notation.

LINE 590 checks for an error condition that may not occur very often.

In some cases, rounding of numbers can cause the number of digits to exceed nine. In that event, the truncation forced by CBM BASIC may generate an error. Line 590 tests for this by comparing the original value of the number before rounding (which is still stored in the variable N) with the rounded value held in N\$.

LINE 600 (I nearly missed this one!) Rounding sometimes may increase

the number of integer digits and thereby cause the nominated format length (FL) to be exceeded. For example, 99.9 rounded to a whole number will be returned as 100. This needs four character spaces for display (allowing for the invisible + sign). If a format length of only three had been selected, this error would not have been detected by Line 530.

LINE 610 checks for a null value or a number which has been rounded to a zero value by the subroutine. If the condition is true, a simple '0' is passed on to Line 620 for padding to the required string length. Without this check, zero values in such forms as 0.00 or -0.00 would be returned by the subroutine (personally I think zero values displayed in forms like '0.00' are cumbersome and can easily be misread).

LINE 620 adds any necessary spaces to the front of the rounded number held in N\$ in order to pad out the string length to the assigned format length. This will ensure that any tabulation of numbers printed by the program will be right justified.

So much for the 'maths' approach to rounding and formatting numbers.

If you are not satisfied with a routine that mostly works correctly (or if your programming needs demand accuracy all the time), an alternative approach is to use a routine which relies solely on the string handling functions of BASIC to do the rounding and formatting.

## Rounding and formatting the string way

It is possible to manipulate a number in its string form with string functions to produce a rounded result without using the INT (or CINT or FIX) function at all.

PROGRAM 2 demonstrates a solution to the problem of rounding and formatting numbers using string tech-

## Program 2

```
1 REM ** EEROUNDING ROUTINE - STRING APPROACHEF ** 10
PRINT CHR$(147)
100 INPUT "NO. OF DECIMAL PLACES";DP
110 INPUT "FORMAT LENGTH (2-10) ";FL
120 INPUT "ENTER NUMBER";N
130 FL$=LEFT$(" ",FL)
140 FFS$=LEFT$("FFFFFFFF",FL):FRS$=LEFT$("RRRRRRRRRR",FL)
150 GOSUB 500
199 :
200 PRINT N$:PRINT
210 GET KE$:IF KE$="" THEN 210
220 GOTO 100
499 :
EE500 IF ABS(N)>999999999 THEN N$=FRS$:RETURNF:REM range errorEE
510 NN=(ABS(N)-(ABS(N)<1))*(SGN(N)-(N=0))
520 IP=LEN(STR$(INT(ABS(NN))))+1
530 IF IP+(DP=0)+DP>FL THEN N$=FFS$:RETURNF:REM format errorEE
540 IF MIDS$(STR$(NN),(IP+DP+1),1)=>"5" THEN NN=(ABS(NN)+10^(DP)*SGN(NN))
550 NN=VAL(LEFT$(STR$(NN),LEN(STR$(INT(ABS(NN))))+DP-(DP>0)))
560 NN=NN+10^(DP+1)*SGN(NN)
570 N$=LEFT$(STR$(NN),LEN(STR$(NN))-1+(DP=0))
580 IF ABS(N)<1 THEN N$=LEFT$(N$,1)+MIDS$(STR$(VAL(MIDS$(N$,2,1))-1),2)+MIDS$(N$,3)
590 IF ABS(VAL(N$))<ABS(N)-.5 THEN N$=FRS$:RETURNF:REM range error-EE
600 IF LEN(N$)>FL THEN N$=FFS$:RETURNF:REM format errorEE
610 IF VAL(N$)=0 THEN N$="0"
620 N$=LEFT$(FL$,FL-LEN(N$))+N$
630 RETURNF
```



niques. This approach essentially uses the same method we humans use when rounding numbers (and we know this method always works correctly).

As with Program 1, lines 500 to 630 are the 'guts' of this program and are designed to be used as a subroutine in your programs. Like Program 1, the subroutine requires values to be passed from the main program flow in the global variables N (number), DP (decimal point), FL (format length), FL\$ (string of FL spaces), FF\$ (string of FL 'f' characters) and FR\$ (string of FR 'r' characters).

The variables NN and IP are local variables which are assigned values only within the subroutine.

The line numbering and syntax of Programs 1 and 2 have been kept as similar as possible to make it easy to compare the two approaches. In fact you will see that the coding of the two programs only differs in Lines 520 and 540. Program 2 also includes a Line 550 which did not occur in Program 1 (No! it wasn't left out by mistake).

Line 520 should look familiar if you haven't dosed off reading this article. It is the alternative string method of determining the position of the decimal point in the number to be rounded which was explained when describing Line 520 of Program 1.

In the event that you prefer the (slower) LOG technique used in Program 1, please feel free to substitute Line 520 of that program - the choice is yours.

Lines 540 and 550 are where all the action happens. As mentioned, these lines mimic the human approach to rounding. To round to the required number of decimal places we look at the decimal digit to the right of the place to be rounded (eg. to round to 2 decimals we examine the 3rd. decimal to the right of the decimal point).

If this digit is equal to or greater than 5 then we add 1 to the digit immediately to the left. Should that digit be increased to 10, the next digit to the left is increased by 1, and so on until rounding is

completed. Finally, the rounded number is truncated to the required decimal place by slicing off all digits to the right of that place.

A step by step analysis of Lines 540 and 550 follows -

LINE 540 first converts the value to be rounded (temporarily held in NN) to its string form by the STR\$ function. The MID\$ string function is then employed to examine the character to the right of the place to be rounded.

If this character is a 5 or more, the value in NN is rounded up, otherwise control is passed to Line 550 without changing the value of NN.

LINE 550 takes the value in NN passed by Line 540 and again converts it into string form. It then determines the number of string character spaces needed to hold the rounded value.

This is done by totalling the number of integer places [INT(ABS(NN))]; a space for the sign of the number [included when the previous value is converted to its STR\$ form]; the number of required decimal places [DP]; and a space for the decimal point if rounding is to be to a decimal place [-(DP>0)].

In the event that the number of characters forming the string version of the value in NN exceeds the number of string spaces required, the extra digit characters at the right end of the string are sliced off by the LEFT\$ function.

The modified (rounded) value is then substituted for the old value in NN and passed on to Line 560.

To show that there is more than one way to skin a cat, the following conditional statement could be added to Line 560 to carry out the same check made by Line 610 (Line 610 would not then be needed) -

```
: IF ABS(N)+.5/10^DP<10^-DP  
THEN NS="0":GOTO 620*1m10:ln1
```

This statement looks to see if the absolute value of N, after rounding to the required decimal place, would be less than the minimum permitted value for the selected number of decimal places

(eg. .01 would be the minimum value for 2 decimal places of accuracy). If so, a simple '0' is assigned to the variable NS and control passed directly to Line 620.

Be cautious about using this conditional check instead of Line 610. It works OK in Program 2 but is not reliable in Program 1. This is because of the problem which the 'maths' solution has in correctly rounding up on a '5' in all cases.

Well that's all folks. Whichever programming approach you use is up to you!

Should you need a routine that is reliable 100% of the time, the 'string' approach (as demonstrated by Program 2) is the only way to go. If a failure to sometimes correctly round up on 5 is not critical, the 'maths' approach used in Program 1 will do the job.

To evaluate the relative speeds of the two program routines, I carried out some timing tests on rounding a series of numbers to two decimal places. Guess which was faster by a factor of about 1.4? The 'string' approach!!

Substituting Line 520 of Program 2 for that line in Program 1 will speed up the 'maths' approach somewhat but it still remains about 1.25 times slower than the 'string' routine. It just goes to show how powerful BASIC string handling functions can be.

In the event that your programming needs can be met by the PRINT USING command and you are using a version of BASIC which includes this command, do make use of it. A subroutine is a poor substitute for a BASIC statement or command which will achieve the same result.

It also increases the memory requirements of a program! Just ask any Commodore BASIC programmer who has upgraded from CBM BASIC Version 2.0 running on the VIC20 or C64 to Version 7.0 on the C128 Series! ■



# More about start-up sequences

by Tim Strachan

In the last issue, we had a look at a standard vanilla SUS, such as appears in a virgin Workbench disk in the S directory (where all "scripts" or "batch files" are kept for convenience, since the EXECUTE command automatically looks in the S directory when run).

If your Word Processor can save text files as ASCII (ie, straight text without hidden formatting commands - check your manual), then it's best to use it to edit batch files. Otherwise, use ED which lives in your C directory.

## A useful 1.3 SUS

This is the SUS I use on my A1000 - we'll go through it below to see why what is done when. Note that the numbers at the beginning of each line are there only for reference in this article - don't put numbers in your own SUS.

This particular SUS doesn't claim to be the be-all of SUS, but it works fine to set up a Recoverable Ram Disk using the 1.3 Operating System software, which SHOULD be available by the time you read this.

```
1 Addbuffers df0: 20
2 addbuffers df1: 20
3 c:SetPatch >NIL: ;patch system func-
tions
4 cd c:
5 echo "Release 1.3 version 34.19*N"
6 addmem 400000 5ffff
7 Sys:System/FastMemFirst ; move
C00000 memory to last in list
8 failat 30
9 assign >nil: RAD: exists
10 if warn
11 echo "Mounting RAD:"
12 mount RAD:
13 endif
14 if not exists RAD:C
15 sys:system/diskcopy <nil: df0: to
```

```
RAD: name "RAMWB"
16 endif
17 RAD:C/failat 10
18 RAD:C/cd RAD:C
19 assign c: RAD:C
20 assign s: RAD:S
21 assign L: RAD:L
22 assign devs: RAD:devs
23 assign fonts: RAD:fonts
24 assign sys: RAD:
25 BindDrivers
26 FF >NIL: -0
27 resident CLI L:Shell-Seg SYSTEM
pure add
28 resident c:Execute pure
29 mount newcon:
30 ;
31 failat 11
32 run newshell from s:StartupII
33 wait >NIL: 5 mins
34 path ram: c: sys:utilities sys:system
s: sys:prefs add
35 LoadWB delay
36 ;:popcli >nil: 300 newshell
"NEWCON:0/10/640/200/ Megadisc
"
37 run wicon -w
38 endcli >NIL:
```

## What the lines mean

Lines 1 & 2

Addbuffers df0: 20  
addbuffers df1: 20

The ADDBUFFERS command lets you add a number of "buffers" to the list of "sector caches" for any particular drive. In other words, your most recent commands are kept in memory, so that if you try a command again (such as > dir df1: opt a or whatever), it'll be faster because the machine has remembered it and doesn't have to go to the disk to drag it off again.

Note that each buffer takes 512 bytes,

and that unless you're running a hard disk with the FastFileSystem, more than 20 or 25 is unnecessary. On Megadisc9 you'll find a longer treatment of other ways to do this - check out "Hints & Tips".

Line 3 c:SetPatch >NIL:

There are a few bugs in both 1.2 and 1.3 Kickstart ROMs (Read Only Memory chips, such as the 1.3 Kickstart ROM that A500/2000 owners can get changed), and SETPATCH fixes these - make sure it's about the first thing in the SUS.

Line 4 cd c:

This line simply changes directory to the C: "logical device" - i.e., something recognized by the system as a device, just as a disk drive is a physical device (e.g., df0:). The C: logical device is usually the C directory of your system disk, but could be ASSIGNED to practically anywhere (see later). This line could just as well have read: cd sys:c

Line 5

echo "Release 1.3 version 34.19\*N"

The ECHO command can be used to display any message you like - you could enter something like: echo "Good morning, sunshine!", and if you wanted to you could enter a SAY statement so that the machine speaks to you.

Generally, ECHO statements are a bit of a waste of time in a SUS.

Line 6 addmem 400000 5ffff

Because I have a non-autoconfiguring (ie, you need to tell the system explicitly that it's there, unlike autoconfigure Ram, such as the A501) 2-megabyte Proton



Ram board on the system, this command adds the extra Ram to a particular address (described in hexadecimal format here) in memory.

Line 7 2Sys:System/FastMemFirst

Normally the Amiga uses, in sequence, \$C00000 Ram (such as the A501 Ram); then Fast Ram (such as my 2-meg board), then Chip Ram (the 512K that comes with the machine and is accessible by the custom chips for graphics, etc, and therefore should be conserved when possible).

FASTMEMFIRST rearranges this sequence of memory use to Fast Ram, \$C00000 Ram, then Chip Ram. This results in faster operation of the system. Note well - A2000 users will find their systems functioning much faster if they put this command in at the top after SETPATCH and before BINDDRIVERS.

Line 8 failat 30

FAILAT is a command which sets the level at which a batch file fails to be executed - some simple errors (which aren't really errors) may cause the SUS to stop. This command makes sure it continues.

Lines 9 - 13

```
assign >nil: RAD: exists
if warn
echo "Mounting RAD:"
mount RAD:
endif
```

Line 9 tests for the existence of the logical device RAD: (ie, the Recoverable Ram Disk). The 1.3 ASSIGN command has the keyword EXISTS which does the checking. If RAD: doesn't exist, which is denoted by the next line, IF WARN, then the system tells you on screen that it's "mounting RAD:", and goes ahead and does it.

Specifically, RAD: is like hard disks in that it must be "mounted", meaning that in the MOUNTLIST, a text file in the DEVS directory, there must be an en-

try for RAD:, telling the system the specifications for it.

On the 1.3 Workbench release disk this entry will automatically be there - however, you can change the size of the RAD: to whatever you like, depending on how you want to use it and how much memory you've got to play with.

In the case of this particular SUS, I've changed the HICYL Value to 79, meaning that I've set RAD: up to be exactly the same size as a floppy disk (80 tracks, 0 to 79), so that I can DISK-COPY my entire Workbench disk to RAD:, and then dispense with the disk altogether, thus freeing up a disk drive and giving me a lot more speed of system operation.

But it is possible to set HICYL for example to about 20 or so, and just copy specific CLI commands into it and then ASSIGN the logical device C: to RAD:. Note that Lines 10-13 constitute an IF-ENDIF loop - don't forget the Endif.

Lines 14 - 16

```
if not exists RAD:C
sys:system/diskcopy <nil: df0: to RAD:
name "RAMWB"
endif
```

Another IF-ENDIF loop, with the purpose of (a) seeing whether the C directory on the RAD: device already exists - if it doesn't, which implies that you're booting up for the first time, the next line DISKCOPYs the entire boot disk to RAD:. If RAD:C does exist, the system will move to line 17 and carry on.

So this loop exists to see whether you've just done a warm reboot (ie, CTRL-A-A), in which case the Recoverable Ram Disk should have recovered and you don't have to set it up again.

Lines 17 - 18

```
RAD:C/failat 10
RAD:C/cd RAD:C
```

Another FAILAT command, as a kind of a test that everything has gone well so far, followed by changing directory to the C directory of RAD: which

now certainly exists, since RAD: has either recovered, or if not, you've copied a C directory from your boot disk to it, amongst other things.

Lines 19 - 24

```
assign c: RAD:C
assign s: RAD:S
assign L: RAD:L
assign devs: RAD:devs
assign fonts: RAD:fonts
assign sys: RAD:
```

A series of ASSIGNS now follows, meaning that all control of the system is transferred to RAD: rather than the default df0: (boot disk). The logical devices s:, devs:, t:, etc. are now all searched for in RAD:. Note that with ASSIGN you can transfer control of any of these logical devices at any time to any other like-ly device, floppy or hard disk.

So if you need some of the C commands on the disk in df1:, you could enter in the CLI something like: > assign C: df1:c

Line 25 BindDrivers

BINDDRIVERS simply configures automatically any expansion hardware drivers that are found in the Expansion directory of the System disk, usually as icons set up by the makers of the device. Now that I come to think of it, totally unnecessary on this startup sequence since I don't even have an expansion drawer, much less anything in it! Out it goes!

Line 26 FF >NIL: -0

FF is "FastFonts" by Charlie Heath, a program which turns on Fast text display routines if used with the "argument" -O as here; or to turn it off use -N; or give a Font name for a 8X8 pixel font to replace the system font if you wish, such as Pearl Font on the public domain.

Line 27

```
resident CLI L:Shell-Seg SYSTEM pure
add
```







NEWSHELL command.

Lines 30 & 31

```
;
failat 11
```

You can always leave a space in a batch file, by putting in a semicolon, followed by a comment of your own if you like, to remind you of something. And FAILAT pops up again just in case there's a simple error.

Line 32

```
run newshell from s:StartupII
```

This line executes a whole new batch file called StartupII from the S directory in a new SHELL (and you can use this same technique of opening a New CLI from a particular batch file elsewhere, along the lines of > newcli from sys:s/myBatchFile), and it looks like this, as cut straight in from WB 1.3:

```
resident c:Resident pure
resident c:List pure
resident c:CD pure
resident c:Mount pure
resident c:Assign pure resident c:Makedir
pure
mkdir ram:t
assign T: ram:t ;set up T: directory for
scripts
mkdir ram:clipboards ;set up CLIPS:
assign
assign CLIPS: ram:clipboards
mount speak:
mount aux:
mount pipe:
break 1 C ;signal to other process its ok
to finish
```

Here we make a few commands resident for speed of the system. Make and assign the T and clipboards directories in Ram (could be RAD:); mount the SPEAK: (see Hints&Tips for how to use it), AUX: (for adding a new keyboard for input to your Amiga), and PIPE: devices; and then tell the original Startup sequence process to continue. Line 33 WAITS until it's told to carry on by this last command.

Line 34

```
path ram: c: sys:utilities sys:system s:
sys:prefs add
```

This line adds a number of directories to the PATH that the system looks in when you enter a command. So now you can open NOTEPAD straight from the CLI by entering its name, because we've added the directory SYS:UTILITIES, where NotePad lives, to our search path.

A good technique using Path is to copy a bunch of much used C commands to RAM: and then enter > path RAM: add. There are many variations on this theme.

Line 35 LoadWB delay

This command loads Workbench and with the DELAY option it waits 3 seconds before exiting, to allow disk activity to stop before execution continues.

Line 36

```
;c:popcli >nil: 300 newshell
"NEWCON:0/10/640/200/ Megadisc "
```

This line doesn't operate in this start-up sequence simply because there is a semicolon at the beginning of the line, which effectively says "ignore this line". I left it in to show you can do that to any line, which you may want to do to test a SUS which you're working on - it's better to slip a semicolon in and out than removing or retyping a line again.

Likewise, at the end of any command in a batch file, you can whack in a semicolon followed by any text comments you want to put in to, say, remind yourself of why it's in or whatever. In this particular case, it seemed that POPCLI (which is a handy little program which pops up a CLI whenever you press Left Amiga & ESC, as well as having a SCREEN-BLANKER) caused the 1.3 system to hang!.\*

Rather annoying, but I thought it could be reinstituted when I found out why I was wrong about it. If you're still running 1.2 when you read this and want

to use POPCLI, use the following syntax:

```
c:popcli >nil: 300 newcli "CON:0/10/
640/200/ Megadisc "
```

Of course, you can put any text in there instead of "Megadisc" and you can change the size of the window that pops up by changing the numbers.

Line 37 run wicon -w

This simply runs the excellent program by Sydney programmer Steve Sweeting. It allows you to click on any window and reduce it to a small icon which can be reactivated at any time - use it, you'll love it!

Line 38 endcli >NIL:

Finally, ENDCLI...Note that you don't have to include this statement, if you want the CLI window to hang around for immediate use.

## A few other notes

**MULTIPLE COPY & PATH COMMANDS** - both COPY and PATH can take multiple files or directories, which speeds up and shortens your SUS. So if you're copying a few commands to RAM: for example, you can do them all at once, as follows:

```
copy (cdlcopylexecuteldirllist) ram:
```

Likewise, as noted above, you can add several PATHs in one line.

**DOSKWIK** - although the new RAD: lets you do a diskcopy to it, which is pretty fast, you might just like to load a limited number of things into it. COPYING them individually is slow and grinds the gears, so you can use the public domain programs READKWIK and RITEKWIK to prepare a bunch of files for copying from say df1:. Very speedy - check our PD library.

If you found this article useful, you'll find more of the same on the various Megadisks - check out the ad in this issue.



# 128 Corner - *GEOpublish Part 1*

by Harry Waterworth

**H**ave you ever felt frustrated that you could never get that flyer for your social club or newsletter for your user group printed just the way you wanted? The man at the print shop just couldn't seem to get on paper what you had in your mind. Well, feel frustrated no more, for now, there are a number of excellent desktop publishing programs for the 128 or 64 user that allow you to lay out your own artistic creations so that you can get exactly what you require.

So far, the pick of the crop seem to be *Paperclip Publisher* from Electronic Arts; *Page Illustrator* and *Page Builder* (you combine these two stand-alone programs) from Patech Software; and *geoPublish* from Berkeley Softworks. Again, with *geoPublish*, you require Geos (either 128 or 64) as the text and graphics to use in the program are imported from either *geoWrite* or *geoPaint* programs. This month's column will feature *geoPublish* and we will follow this up in the near future with the Patech programmes (which unfortunately for 64 users are dedicated 128 programs) and *Paperclip Publisher* (both 128 and 64).

## A look at desktop publishing

Before we proceed any further, let's take a look at just what desktop publishing really means. There are many programs that allow you to mix text with graphics, but that is a far cry from true desktop publishing. In order to qualify as a true desktop publisher, the program should allow you to have the following features at your disposal:

1. The ability to format columns
2. Capacity for text to 'flow' around graphics
3. Be able to provide numerous fonts and to change font sizes
4. Import graphics and re-scale them to fit the required space
5. Vertical or horizontal printing
6. Being able to move objects in front or behind each other
7. Justification of text within the columns
8. Ability to flow borders around text columns or graphic areas

9. Saving of page layouts to disk for future use

10. Use of a 'zoom' mode for editing the final product

The above "top ten" points are by no means meant to be exhaustive, but without them, you really don't have a desktop publisher in the true sense of the word. *GeoPublish* uses all of these facilities, plus many others which we will cover as we go along. *GeoPublish* is by far Berkeley's most ambitious program to date, and whilst there are a few minor criticisms, they definitely have a winner on their hands. As I mentioned in one of my earlier columns, it's a great pity that their back-up service does not match the quality of their programs.

Having covered desktop publishing in general, let's have a look at *geoPublish* in particular. As I said, it is one of the better programs from Berkeleys, and to give you an idea of its size, the *geoPublish* program itself takes up 99K of your disk space. Given that you can only store 165K of data on one side of a disk, there is not a lot of room left for other applications such as *geoPaint*, *geoWrite*, different fonts etc, let alone the *geoPublish* layouts you wish to create.

## Getting organised

If you have the 1750 expander, you can load your files into the Ramdisk at the beginning of the session. Otherwise, you are in for a lot of disk swapping plus waiting time for the disk to access new screens as you scroll around the pages you're working on. To be quite honest, I would not like to run this program without the expander. My *geoPublish* workdisk is made up as follows:

Side 1. Geopaint File: 9 Font Files: Photo Manager: Calculator: Clock: Master Page file: Page Layout file. (Total of 148K)

Side 2. Geopublish file: 128 Desktop: Geowrite 128 file: Preference Manager file. (Total 162K)

I copy side one of the disk straight into the expander, then I transfer the four files on side two individually into the ex-

pander (for newcomers to Geos and the Ram, if you try to copy the second side to Ram in one hit, all you do is wipe the first side that you had previously copied). Having got all of your files organised, you are now ready to become the next Kerry Packer on your neighbourhood block.

## Let's get started: Master pages

Creating masterpieces with *geoPublish* is divided into three separate stages. Your first step is to lay out your Master Page. What you design in this section will appear in every page of your document. Your heading is created in master page mode, along with the date, guidelines, graphics and any other information that you want to appear on every page of your document.

To cater for those of you planning to write the great Australian masterpiece, Berkeleys have designed the master page mode to give the user two distinct layouts. This capability allows for different layouts for left and right pages for documents of two pages or more. In master pages, the toolbox that appears provides a number of options to spice up the document, some of which are as follows: Circles; lines; connected lines; polygons; open and closed splines; rectangles etc. Included in the toolbox is the attributes facility, which lets you change the thickness of the lines, fill the circles and rectangles with patterns, change the font and size of your text plus a number of other features which we will cover as we go along.

The other main function of master pages is to set the guidelines to align your columns for text, headlines, graphics etc. Having done that, the next step involved is:

## Page layout

This mode is where you import text from your *geoWrite* files or graphics from *geoPaint* that you created earlier to use in your document. In this mode, you use a tool called "open region" to define an area in which you wish to drop your text or graphics. If you had defined an area in



the centre of a two column page and placed a picture in it, then your text would flow around either side of the graphic. To see the text on screen, it is necessary to use zoom mode. In ordinary (or preview) mode, your text regions simply show up as diagonal lines within the columns.

Page layout mode is also where you get to use "The editor". This function is very similar to *geoWrite*, and you can change fonts, sizes etc to help you to get the text to fit exactly into the columns. You can also make alterations to your text whilst in editor mode.

### Page graphics

The third mode of *geoPublish* is page graphics. In this mode, you are given the same toolbox to use as in master page mode. The difference here however is that anything (either text or graphics) created in page graphic mode will only appear on the page on which you are working and not on every page as is the case in master pages.

As you may have gathered, *geoPublish* is a fairly complicated program and it takes a fair amount of time and practice to get the hang of it. However, there's a lot of fun to be had along the way and the end result is well worth the effort. There are a lot of new features in *geoPublish* that are an absolute buzz to use. You can drop graphics into your program, then move them around; scale them to fit different sized regions; make the picture transparent if you want to superimpose it onto another image, the possibilities are endless.

Likewise with text, you can print any size from 4 points to 192 points (that's over two inches high); get your text to run up or down the page; use any of the Geos fonts for fancy work; have the text underlined or printed in italics or both. Transparent mode can also be used with text so there is virtually no end to what you can do with this program.

Because of the size and nature of the program, this month's article is just an introduction to *geoPublish*. There are many features not covered here, so next month, we will go step-by-step and create a newsletter using *geoPublish*. Hopefully, space and the editor permitting, we will print the end result to give you an idea of just how good it is. Look forward to seeing you again next month. ■

## Basic BASIC, a tutorial for

Yet again I'll introduce this article with my customary "Hello, to all interested readers". I'm truly sorry that last month's article was a month late. This was due to circumstances beyond anyone's control. I'll try to make up for the lost time by including a touch more material in this month's issue.

As promised I'll go over the IF...THEN conditional instruction, the GOSUB ... RETURN subroutine structure, and the vagaries of the FOR...NEXT loop. That in itself is enough for one issue's worth but I'll also include a couple of other things like the READ and DATA commands. If we're lucky (and we will be) I'll give you a taste of the power of the POKE & PEEK commands.

### The IF & THEN commands

The IF THEN command syntax is one of the most useful structures in the BASIC language. Its purpose is to allow comparisons of data and to act according to given conditions.

For example let's imagine that we have come to a section in our program in which a decision must be made. It can be done in two ways. One is to halt the program with an INPUT command like I showed in the last issue and to ask the user on the nature of the action to be taken. Now this would be alright if the user was a computer also and could keep detailed archives of all possible conditions in any single program.

Naturally this is absurd. For this reason the IF command can be used to monitor a condition in a program and act accordingly. In this way all the house-keeping is left to the computer. Before anything is said about the THEN portion of the command let's look at an example.

```
10 INPUT "ENTER TWO NUMBERS A&B "A,B
20 PRINT "I'M GOING TO SEE WHICH OF A &
  B IS LARGER."
30 IF A>B THEN PRINT "A IS GREATER THAN
  B"
40 IF A<B THEN PRINT "A IS LESS THAN B"
50 END
```

Can you see a basic logic in the program? What the program does is it (as you should know) asks the user for two numbers which it assigns to A & B respectively. It then prints out a nice user-friendly message. What it does now is the new part.

It goes literally, 'if A is larger than B then do whatever comes after THEN'. If what comes after the IF isn't true then the computer simply proceeds in executing the next logical line. If it is true then it does what comes after the THEN command.

In the previous two sentences I've used if and then in a way which we would in a thought process (a bit like playing chess). And this is the way that IF THEN should be implemented. Think to yourself... What should happen if such and such a statement is true? Then write it out in BASIC! It's as easy as that.

Even though I didn't want to confuse you in previous issues on things like 'command syntax templates' (try getting your mouth around that one!) I think this would be the best way to explain the IF THEN statement completely. The template is:

```
*IF [conditional-expression] THEN
[action] or [line no.]
```

Where [conditional-expression] is to be evaluated and [action] is the action to be taken if the [conditional-expression] is true OR it is the line number to which we want the program to go.

Up till now our program examples have been trivial, but we now have enough of a grasp of BASIC as to be able to write a small number-guessing game. The listing is as follows. I'll leave it to you to work out how it works. Make certain you can explain its workings.

```
5 REM *** O.CANDEMIR 20.11.88 ***
10 PRINT "NUMBER GUESSING GAME."
20 PRINT "I'LL THINK OF A NUMBER & YOU
  HAVE TO TRY AND GUESS IT. O.K.??";
30 INPUT RESPONSE$
40 IF RESPONSE$="Y" THEN 60
50 IF RESPONSE$="N" THEN END
60 A=45:COUNT=0
70 INPUT "ENTER YOU GUESS ";B
80 COUNT=COUNT+1
90 IF B=A THEN PRINT "YOU GOT IT!":GOTO
  120
100 IF B>A THEN PRINT "TRY LOWER NUM-
  BER":GOTO 70
110 IF B<A THEN PRINT "TRY HIGHER NUM-
  BER":GOTO 70
120 END
```

Simple, isn't it? One thing to note is that with the IF statement, if the conditional-expression is true then everything on the line subsequent to it will be executed also. See the examples in lines



# beginners PART 3 by Oben Candemir

90,100 and 110 with the GOTO statements appearing in a multi-statement on the same lines as the IF statements.

They are also executed because they're on the same line as the IF statement which was true. In the example the IF THEN was used in two different ways. One was to jump to another line ie. 40, & the other way was with lines 90, etc. in which the jumping was delayed and PRINT was executed with a GOTO coming later on in a multi-statement. It would also have been valid on line 90 to write:

```
90 IF B=A THEN 120
and then on line 120 write:
120 PRINT "YOU GOT IT!!"
130 END
```

This eliminates a GOTO but has the disadvantage of being long. Both are equally valid though. See how it works now?

Before continuing I'll list the comparisons you're able to make with the IF command. You may use these anytime in an IF:

```
= equal
<> not equal to
< is less than
> is greater than
<= is less than or equal to
>= is greater than or equal to
```

So a statement which went:

IF A<=5 THEN .... would read: 'If A is not equal to 5 then ...'

This would be useful in a quiz or something in which any answer apart from 5 could be distinguished. For example:

```
10 INPUT "WHAT IS 5+8 ";A
20 IF A<=13 THEN 50
30 PRINT "WELL DONE"
40 END
50 PRINT "YOU TWIT, DON'T YOU KNOW HOW TO ADD?"
60 PRINT "YOU'RE NOT GOING TILL YOU GET IT RIGHT."
70 GOTO 10
```

## The GOSUB & RETURN structure

Now let's investigate the GOSUB, RETURN statements. There is in programming what's known as subroutines. What this means is that during the execution of our main BASIC program routine we can go to a sub (or branch out to a smaller) routine.

A whole program may in actual fact be composed of smaller subroutines which

are called by a mother routine. This I might say is the style of programming I encourage. Not only are such programs easy to debug (which means getting rid of problems or BUGS) but they are easily readable. The command in BASIC which allows us to 'call' subroutines is GOSUB which is short for 'GO SUBroutine'.

The RETURN is used to literally return to the line after the calling line once the subroutine is done. For example:

```
10 REM ***GOSUB EXAMPLE***
20 GOSUB 100
30 GOSUB 120
40 GOSUB 140
50 END
100 PRINT "FIRST SUBROUTINE!"
110 RETURN
120 PRINT "SECOND SUBROUTINE!!"
130 RETURN
140 PRINT "THIRD SUBROUTINE!!"
150 RETURN
```

Do you get it? I hope you do because that's all I'm saying about it. If you are truly unsure ask someone more experienced for help. I have space limitations.

## The FOR NEXT loop

The next thing on the agenda is the FOR NEXT loop. Once mastered this is an invaluable tool. I'll show you some uses in later issues.

Before I introduce the command however I'll give you examples of how the FOR NEXT loop is the optimum way of expressing a loop in BASIC. For those who don't know what a loop is, it is a part of a program which is repeated many times according to a given condition. Now this may still sound double Dutch to you but the examples following will hopefully clear you up.

This program doesn't use any loop structures.

```
10 PRINT "1"
20 PRINT "2"
30 PRINT "3"
40 PRINT "4"
```

Pretty clumsy eh? You've had to type in PRINT four times. Can we do better? Of course!

The program below uses a variable and the GOTO statement to 'loop'.

```
10 A=1
20 IF A>4 THEN END
25 PRINT A
30 A=A+1
```

```
40 GOTO 20
```

Can everyone see the logic? This program is a little smarter than the last but still isn't the best way. Note the dreaded GOTO on the last line. Now here is the best way.

```
10 FOR A=1 TO 4
20 PRINT A
30 NEXT A
```

Notice how short and concise it is. This is what we must always aim for as programmers. Clear and concise work. I bet you're dying to learn how it works though.

The principle is simple, the structure behaves exactly like the one above. With the FOR command follows a definition of how many loops the program will take. So line 10 means "loop FOR however many times it takes to get from 1 TO 4".

Note that a variable must also be specified. On each pass of the loop this value takes the value of the 'loop counter'. In our case the values 1 TO 4. The NEXT statement marks the end of the loop part of the program (literally it says 'NEXT loop' thank you).

So the FOR NEXT loop only executes whatever is in between them. Note that the NEXT statement is followed by the variable A. This means that this NEXT command corresponds to the FOR command which defines A as the loop counter. In practice this isn't necessary as the NEXT is always assigned to the closest FOR command. Which brings us to 'nesting'.

FOR NEXT loops may be nested, which is yet another new concept to beginners. This simply means that you may have FOR NEXT loops within FOR NEXT loops. Don't overdo it though or the poor machine will get bogged down keeping up with us. (By the way the C-64 operates at about 2 MHz for those who didn't know). Let's take a look at an example of nesting FOR NEXT loops now.

```
10 REM *** NESTING EXAMPLE ***
20 FOR A=1 TO 16
30 POKE 53280,A
40 FOR T=1 TO 100
50 NEXT T
60 NEXT A
70 END
```

What this program does is set up an outer FOR NEXT loop with the variable A.



This variable is used in line 30 for something you shouldn't concern yourselves about for the moment.

Now we come across lines 40 and 50 which are within the outer loop. We quickly notice that there is nothing in this loop and it therefore does nothing but burn a little CPU cycles! This is what's known as a time-delay loop.

Did you enter the program? Did you like what it did? This effect is the result of the POKE command which I'll teach you about right after the next section on READ & DATA.

## The READ, DATA statements

Sooner or later, (sooner I hope) you're going to need to manipulate data in your programs. Asking the user to type in everything isn't exactly what programming is about, neither is it about having to type in hundreds of PRINT statements.

The READ & DATA statements give us a welcome chance to ease the work of us programmers. Let's start by looking at an example.

```
10 VAR$=""
20 FOR A=1 TO 4
30 READ VAR$
40 PRINT "DATA NUMBER ";A;" IS ";VAR$
50 NEXT
60 END
70 DATA
"HELLO","WHAT","HAVE","YOU","LEARNT"
```

What it's all basically about is simple. The DATA statements are followed by string assignments which must be in inverted commas. These data are READ by the statement by the same name sequentially (which means one after the other).

The data could have been numerical in which case you'd read into a variable name and your data needn't have the inverted commas. One other thing is that more than one piece of data can be read in by the same READ command. Lastly the data may be spread out over many DATA statements. An example follows which illustrates all of this.

```
10 A=0 : REM CLEAR THE VARIABLE
15 PRINT "NUMBER SQUARE CUBE"
20 FOR X=1 TO 5
30 READ A,B,C
40 PRINT " ";A;" ";B;" ";C
50 NEXT
60 END
70 DATA 1,1,1
80 DATA 2,4,8
90 DATA 3,9,27
```

```
100 DATA 4,16,64
110 DATA 5,25,125
```

Of course you'd be silly to write such a program for real use though. All the calculations could have been done by the computer. The program is just meant to be an example. Anyway I hope you've understood this point.

**WARNING!** When using READ and DATA make sure you have enough data needed for the corresponding READ commands or else you'll get a rude response from the computer saying:

?OUT OF DATA ERROR

## The mighty POKE & PEEK

When I was first learning BASIC one of the most difficult concepts to cope with was the POKE command. Before explaining how to use it I feel that a little rundown on the C-64's memory structure wouldn't go astray.

The C-64 was and still is a very versatile computer. It has 64K of memory arranged into ROM and RAM. ROM memory stands for Read-Only-Memory whereas RAM for Random-Access-Memory.

ROM memory just as its name implies is unchangeable and can only be read from. This type of memory is used to hold things like the BASIC interpreter which must always stay in memory and not disappear when the C-64 is switched off (for obvious reasons!!). But the computer must be able to be changed, in order to hold programs and to be useful.

It so happens that the memory which holds what colour the screen will be, etc. is held in RAM memory. Therefore it may be changed by the user. How does one change it? Easy, just use POKE! What POKE does is it 'pokes' a number into a specified memory location. The use of this is to be able to change the computer's actual memory, for a purpose.

Earlier in this article I used the statement POKE 53280,A where A contained a number. The location 53280 on the 64 holds the information on what the background screen's colour will be. This can be a number from 1 to 16 (it can be more but these just repeat the values from 1 to 16). Try POKEing 53280 with the following command in the immediate mode.

POKE 53280,0

The background goes black, right? Try it also with 53281, the foreground

screen's colour location.

POKE 53281,0

The foreground screen is now black. You can see how this can be useful in programs. There are many such locations on the 64. However don't go poking memory like crazy though. Some memory locations contain important information which if changed will crash the computer. If you don't believe me type:

```
FOR X=1TO200:POKE X,0:NEXT <HIT RETURN>
```

The computer has crashed! This may be used in programs to deny access to unauthorized users. Maybe an incorrect password's result. Good stuff eh?

Anyway each month I hope to teach you more of these POKE locations (anyone who owns the REFERENCE GUIDE may look at the memory map somewhere in the middle of the book for such locations). Feel free to experiment!

By the way don't try poking values larger than 255. This is because the C-64 is an 8-bit computer and has locations able to contain 2 to the power of 8 or 256 different numbers. That is from 0 to 255 inclusive.

To see what a particular memory location holds we use the PEEK command. For example type in the immediate mode:

```
A=PEEK(53280) <HIT RETURN> PRINT A <HIT RETURN>
or
PRINT PEEK(53280) <HIT RETURN>
```

This will show you the content of memory location 53280. But now here's a couple of locations which you might like to poke.

Location	Result
205	The cursor's blink delay.
646	Colour of cursor.
1024-2039	Screen memory. Poke this like mad!! See what happens!
650	Key Autorepeat. 0=cursor controls repeat. 128=All keys.
651	Amount of wait before repeat.
652	Amount of wait between repeats.

Something else which might be of use is SYS 64738 which resets the computer without having to turn it off!

Next month we'll learn more BASIC and string manipulation commands. Also something on CHR\$ & ASCII codes. Bye till next month (hopefully !).



# Bulletin Boards in Victoria

List published by the Australia PAMS Registry

System: ABE Opus Sysop: Nick Mleczo Phone: (03) 288-3599 Baud: V21 V22 V23 Access: Public	Phone: (03) 874-4176 Baud: V22 V22bis Access: Mem VA Hours: Nightly: 2200 - 0700 Computer: IBM XT Clone DOS: PC DOS BBSSoftware: Opus	Access: Reg Public Computer: IBM Clone BBSSoftware: Opus	Symphony
System: ACES High Sysop: Daryl Harvey Phone: (03) 878-2918 Baud: V21 V22 V23 Access: Public DOS: PRODOS BBSSoftware: GBBSPRO	System: Anzugs CBCS Sysop: Gordon Castle Phone: (03) 563-2496 Baud: V22bis PEP Access: Mem Public Computer: IBM Model 80 DOS: PC DOS BBSSoftware: Opus	System: Big Tedd's Bulletin Board Sysop: Rob Bates Phone: (03) 509-6067 FIDOnet: 634/381 Baud: V21 V22 V22bis Computer: IBM XT Clone BBSSoftware: Opus	System: Custom Programming OPUS Sysop: Allan Williamson Phone: (03) 848-3331 Baud: V22 V22bis B103 B212 Access: Mem VA Computer: IBM PC Clone DOS: PC Dos BBSSoftware: Opus
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System status: Unknown System: Alloy Opus BBS	System Status: Offline System: Atlantis RBBS-PC	System Status: Offline System: C-64 BBS	System: DECUS Sysop: Peter Hill Phone: (03) 62-5806 Baud: V21 V22 V22bis V23 Access: Mem VA Note: Press SPACEBAR for connection
System: AmigaLink Sysop: Bohdan Ferens Phone: (03) 792-3918 Baud: V21 V22 V22bis V23	System: AUSOM Apple ][ BBS Sysop: Grahame Willis Phone: (03) 877-1990 Baud: V21 Access: Public	System: Cave 76 Sysop: Avatar Phone: (03) 836-6976 Baud: V21 V22 V22bis V23 Computer: IBM XT Clone BBSSoftware: Opus	System: Delta BBS Sysop: Big Mother Phone: (03) 793-4548 Baud: V21 V22 V22bis V23 Access: Reg Computer: Apple IIE BBSSoftware: TproBBS
System: AmigaLink Sysop: Gary Gajic Phone: (03) 376-6385 Baud: V21 V22 V23 Access: Mem LVA Computer: IBM XT DOS: MS DOS BBSSoftware: Opus	System: AUSOM Macboard Sysop: Gregory Ward Phone: (03) 435-9152 Baud: V21 V22 V22bis V23 Computer: Macintosh DOS: HFS BBSSoftware: Red Ryder Host	System Status: Offline System: COM ONE System: Comet BBS Sysop: Caulfield High School Phone: (03) 211-0079 Baud: V21 V22 BBSSoftware: IBBS	System Status: Unknown System: Devils Playground BBS
System: AMNET Sysop: Peter Hallgarten Phone: (03) 366-7055 FIDOnet: 634/382 Baud: V21 V22 V22bis V23 Access: Mem Reg VA Computer: Pulsar 80386 DOS: PC DOS BBSSoftware: Opus Note: 10.14 Mhz VK3AVE (Radio) : 147.6 Mhz VK3RPA (Radio) : 1200 bps Amateur Packet Radio	System: Ballarat C.A.E. Sysop: Paul Kelly Phone: (053) 339-285 Baud: V21 V22 V23 Access: Reg VA Computer: IBM XT DOS: PC DOS BBSSoftware: Opus	System: Compusoft BBS Sysop: George Tsoukas Phone: (03) 386-6019 Baud: V21 V22 V22bis V23 B103 B212 Access: Reg VA Computer: Mitac 386 BBSSoftware: Opus	System: Discovery M.P.BB. Sysop: David Bowman, Hal 9000 & Marvin Phone: (059) 75-9058 Baud: V21 V22 V23 Access: Reg VA Hours: Weekdays: 2100 - 0700: Weekends: 24 Hours Computer: IBM XT Clone DOS: PC DOS BBSSoftware: Opus
System: Antarctic Crystal Symphony Sysop: Greg Jones	System: Bayside Opus Sysop: Paddy Plebanowicz Phone: (052) 53-1110 FIDOnet: 632/313 Baud: V21 V22 V22bis V23	System: Crystal Palace Note: Now Called: Further Regions QuickBBS  System: Crystal Symphony Opus Note: Now Called: Antarctic Crystal	System: Doodz Domain Sysop: Scott Rigby Phone: (03) 646-5861 Baud: V21 V22 V22bis V23 Access: Public BBSSoftware: QuickBBS



System: Down Under Amiga/IBM  
 Sysop: Greg Hudson  
 Phone: (03) 755-1584  
 FIDOnet: 632/306  
 Baud: V22 V22bis V23  
 Access: Public  
 Computer: Compaq 386  
 DOS: PC DOS  
 BBSSoftware: Opus

System: Dr Blaze  
 Sysop: Ron Lyth  
 Phone: (03) 890-9323  
 FIDOnet: 635/344  
 Baud: V21 V22 V22bis V23  
 BBSSoftware: Opus

System: Dragon City BBS  
 Sysop: Mal Fields  
 Phone: (054) 47-0398  
 Baud: V21 V22 V22bis V23  
 Access: LVA  
 Computer: Amiga  
 DOS: AmigaDOS  
 BBSSoftware: BBS-PC!

System: East Suburb Eighty User Group  
 Sysop: Martin Axford  
 Phone: (03) 819-5179  
 FIDOnet: 632/347  
 Baud: V21 V22 V22bis V23  
 BBSSoftware: Opus

System: Eastcomm Opus BBS  
 Sysop: Keith Haslam  
 Phone: (03) 288-0775  
 Baud: V21 V22 V23 V23ORG  
 Access: Publi  
 Computer: Eastcomm PC/AT  
 DOS: PC DOS  
 BBSSoftware: Opus  
 System: Eastwood Opus  
 Sysop: Mick Stock  
 Phone: (03) 870-4623  
 FIDOnet: 632/343  
 Baud: V22 V22bis V23  
 Access: Reg VA  
 BBSSoftware: Opus

System: Electric Dreams Opus BBS  
 Note: Now Called: Truth BBS

System: Engbase CBCS  
 Sysop: Greg Furlong  
 Phone: (03) 29-6336  
 Baud: V21 V22 V22bis  
 BBSSoftware: Opus

System: EXCALIBUR-64 RCP/M  
 Note: Now Called: The CP/M Connection

System: Further Regions QuickBBS  
 Note: Now Called: The Further Regions QuickBBS

System: GRAAF Central Victoria  
 Sysop: Leo Julius  
 Phone: (054) 73-4217 Baud: V21 V22 V22bis V23  
 Access: Mem Reg LVA  
 Computer: GRAAF 386  
 DOS: PC DOS  
 BBSSoftware: Opus

System Status: Unknown  
 System: Island BBS  
 System: JIMCON BBS  
 Sysop: Jim Connelly Phone: (03) 762-9843 Baud: V21 V22 V22bis  
 Access: Reg  
 Hours: Daily: 1400 - 0315  
 Computer: Commodore PC20  
 DOS: MS DOS  
 BBSSoftware: Opus

System: L & A Opus BBS  
 Sysop: Phillip Kelly  
 Phone: (03) 800-3215 Baud: V21 V22 V22bis V23  
 Access: Reg LVA  
 Computer: IBM AT  
 DOS: PC DOS  
 BBSSoftware: Opus

System: MACE-ATARI BBS Note:  
 Now Called : Melbourne Atari BBS

System Status: Unknown System:  
 MacLink BBS

System: MainframeZ BBS  
 Sysop: Andrew Whittle  
 Phone: (03) 466-2006  
 Baud: V21 V22 V22bis  
 Hours: Weekdays: 1800 - 0830:  
 Weekends: 24 Hours  
 BBSSoftware: QuickBBS

System: Maxitel BBS  
 Sysop: Galvatron  
 Phone: (03) 560-9292  
 Baud: V21  
 Access: Public  
 Computer: C-64  
 BBSSoftware: C-Net 64

System: MBUG Australia Inc  
 Sysop: Mike Thompson  
 Phone: (03) 882-9421  
 FIDOnet: 633/362  
 Baud: V21 V23  
 Access: Mem

System: Melbourne Atari BBS

Sysop: Stuart Szabo & John Burgess  
 Phone: (03) 899-6203  
 Baud: V21 V22 V23  
 Access: Mem VA  
 BBSSoftware: FoReM

System: Melbourne Data Exchange  
 Sysop: Robert Broomhead  
 Phone: (03) 561-6556  
 Baud: V22 V22bis V23 Access:  
 Reg VA  
 BBSSoftware: Opus

System: Melbourne PC Users Group BBS  
 Sysop: Charles Sandercock  
 Phone: (03) 819-5392  
 FIDOnet: 632/323  
 Access: Public  
 DOS: MS DOS  
 BBSSoftware: Opus

System: Melbourne PIE  
 Sysop: Len Gould  
 Phone: (03) 878-5743  
 Baud: V21 V22 V22bis V23

System: Mercury BBS  
 Sysop: John Fisher & John Swanland  
 Phone: (03) 887-1485  
 Baud: V21  
 Computer: C-64  
 BBSSoftware: C-Net

System: MESA RBBS  
 Sysop: David Woodberry  
 Phone: (03) 563-9102  
 FIDOnet: 632/349  
 Baud: V21 V22 V23  
 Access: Mem Reg VA  
 Computer: IBM XT Clone  
 DOS: MS DOS  
 BBSSoftware: Opus

System: Micom CBCS  
 Sysop: Peter Jetson  
 Phone: (03) 758-8642  
 FIDOnet: 633/371  
 Baud: V21 V22 V22bis V23  
 Access: Mem Reg  
 Computer: IBM Clone  
 DOS: MS DOS  
 BBSSoftware: Opus

System: Microscience Computers BBS  
 Sysop: Stephen Rivenell  
 Phone: (03) 786-7187  
 FIDOnet: 635/361  
 Baud: V21 V22 V22bis

Access: Mem Reg  
 Computer: FireStar 286  
 DOS: MS DOS  
 BBSSoftware: Opus

System: Midnight Frog BBS  
 Sysop: Scott Enwright  
 Phone: (03) 596-1589  
 Baud: V21 V22 V22bis V23  
 Access: Public  
 BBSSoftware: Opus

System: Miki's Opus CBCS Note:  
 Now Called: The Macro Shed

System: Motel International  
 Sysop: Kim Gration  
 Phone: (03) 509-9611  
 Baud: V21 V22 V22bis V23  
 Access: Public  
 Computer: Apple 2GS  
 BBSSoftware: TProBBS

System Status: Offline  
 System: MouseText

System Status: Offline  
 System: Nostromo

System Status: Offline  
 System: Omegatex Videotex Service

System: Osborne Australian BB  
 Sysop: Craig Orr  
 Phone: (03) 890-4096  
 Baud: V21 V22 V22bis V23  
 Access: Reg LVA  
 BBSSoftware: Tcomm

System: Pacific Island  
 Sysop: Craig Bowen  
 Phone: (03) 890-2174  
 Baud: V21 V22 V22bis  
 Computer: Apple  
 BBSSoftware: GBBS

System: PC Connection IBBS  
 Sysop: Lloyd Borrett  
 Phone: (03) 388-0909  
 Baud: V21 V22 V22bis V23  
 Computer: IBM XT  
 DOS: MS DOS  
 BBSSoftware: IBBS

System Status: Offline  
 System: Pegasus

System: Peninsula Colour Computer Club BBS  
 Sysop: Stan Blazejewski  
 Phone: (03) 580-4605  
 Baud: V21



Access: Reg LVA  
Hours: Daily: 2130 - 0700  
Computer: Tandy CoCo 1  
BBSSoftware: Colorama

System Status: Offline  
System: PHYSI-CHALL

System: Premier Systems Note:  
Now Called: USUFRUCT BBS

System: Sam's Opus BBS  
Sysop: Alan Haslar  
Phone: (03) 563-1117  
Baud: V21 V22 V22bis V23  
Access: Public  
BBSSoftware: Opus

System Status: Offline  
System: Sendata

System Status: Offline  
System: SMART BBS  
Sysop: Richard Hoskin

Phone: (03) 602-1336  
FIDOnet: 633/368  
Baud: V21 V22 V22bis  
Access: Mem VA  
Computer: ALR 386  
DOS: PC DOS  
BBSSoftware: Opus

System: Software Mail Centre  
Sysop: Maurie Halkier  
Phone: (03) 725-1621  
Baud: V22 V22bis  
Access: Public  
Computer: Eastcomm PC/XT  
DOS: PC DOS  
BBSSoftware: Opus

System Status: Offline  
System: Sotec BBS

System: Southern Mail  
Note: Now Called:  
Software Mail Centre

System Status: Offline  
System: Super Dimensional BBS

System: Tardis II  
Sysop: Malcolm Miles  
Phone: (03) 859-3109  
Baud: V21 V22 V22bis V23  
Access: Public  
Computer: PC  
DOS: ConcurrentDOS  
BBSSoftware: CALLME/GOLIATH

System: Telegraph Road BBS  
Sysop: Darren Moore  
Phone: (03) 743-6173  
FIDOnet: 633/361  
Baud: V21 V22 V22bis V23  
Access: Reg LVA  
Computer: IBM XT  
DOS: PC DOS

System: Teletex Connection  
Sysop: Darren Sapwell  
Phone: (03) 470-6827 Baud: V23

Hours: 0600 - 2200  
BBSSoftware: Videotext - Note:  
Videotext Compatible ONLY

System: The Amiga Limits  
Sysop: Captain Kirk  
Phone: (03) 725-2895  
Baud: V21 V22 V23  
Access: Reg VA  
Computer: IBM AT  
DOS: PC DOS  
BBSSoftware: QuickBBS

System: The Bridge  
Sysop: David Beckwith  
Phone: (03) 563-8070  
Baud: V22 V22bis  
Access: Public  
Computer: Sharp PC 7100  
DOS: MS DOS  
BBSSoftware: Opus

System: The CadPhone  
Sysop: Stuart Szabo

## Australian Commodore Review SUITE 64

# Disk Magazine No 13

Double  
sided  
disk

★ **Charles** - a huge graphics adventure with animation. You are Charles and must locate the missing computer and return it. Joystick control enables you to travel over 390 screens during five levels. It maintains high scores.

★ **Stowaway** - a text adventure by Base Seven Software. You are a stowaway on a ship - can you escape?

★ **Blackjack** - Play the computer at this favourite card game. VCR Index - keep a file of all your favourite video cassette recordings, tapes or records.

★ **Graphic Converter** - An invaluable utility that enables you to transfer clip art type graphics from Printshop, Printmaster, Stop Press and even future programs to other formats. You can also convert between various picture types such as Blazing Saddles, Koala Painter, Art Studio, Image System, Artist 64 and others.

★ **Disk Diskassy** - This would have to be the best disk utility ever written for the C64. It's in full machine code and includes a BAM editor, Directory Editor, Sector Editor, Index Maker and Menu Creator. All are menu driven and very easy to use. Ideal for the programmer, hacker and hobbyist.

★ **Disk Label Maker** - tired of boring old disk labels? Now you can print one or two sided labels complete with a directory of what's on the disk or customise your own entires to either an Epson FX or MPS801/803 printer.

★ **Icon Changer** (GEOS) - Ever wished you could change your icon? This program will let you edit them to your own design.

★ **Easy DOS** - A quick little program for obtaining a directory, scratching or unscratching files, renaming programs or changing your disk header.

★ **Cruncher BASIC** - If your pushed for memory this program will in seven parcels compact your program as much as possible by compounding statements onto one line.

★ **Calc** - A simplistic spreadsheet type program which is currently tape based but may be modified to save data to your disk drive.

★ **Font Diskassy** - A character editor that also lets you create pictures by combining characters together.

★ **Graphic Demonstrations** - A selection of pictures and music from hackers and artists around the world.

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System: The Clone Phone Sysop: Greg Naylor Phone: (03) 876-4118 FIDOnet: 635/800 Baud: V21 V22 V23 Hours: Weekdays: 0800 - 2300: Weekends: 24 Hours BBSSoftware: Opus	System: The Hot-Line Sysop: Mark Firus & Darren King Phone: (03) 547-5117 Baud: V22 V22bis B103 B212 Access: Reg LVA Computer: IBM XT Clone DOS: MS DOS BBSSoftware: Opus	System: The Real Connection Sysop: The Real Article & Deep Image Phone: (03) 288-0810 Baud: V21 V22 V22bis V23 Access: Public Computer: IBM XT Clone DOS: DoubleDOS BBSSoftware: Opus	System: Valicomm Opus/QuickBBS Sysop: Bill Walker Phone: (051) 27-2572 FIDOnet: 633/365 Baud: V21 V22 V22bis V23 B103 B212 Access: Reg VA Computer: IBM XT Clone DOS: PC DOS BBSSoftware: Opus & QuickBBS
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System: The CP/M Connection Sysop: Maurice Copeland Phone: (057) 83-1040 Baud: V21 V22 V22bis V23 Access: Public Hours: Weekdays: 1800 - 0800: Weekends: 24 Hours	System: The Labyrinth BBS Sysop: Stephen Jones Phone: (03) 318-6562 Baud: V21 V22 V22bis V23 Access: Reg VA Computer: IBM XT Clone DOS: MS DOS BBSSoftware: Opus	System: The Twilite Zone Sysop: Fearless Fred Phone: (03) 562-0686 Baud: V21 V22 Access: Reg Computer: IBM XT DOS: MS DOS BBSSoftware: Opus	System: Yarra Valley BBS Sysop: Frank Conner Phone: (059) 64-3126 Baud: V21 V22 V23 B103 B212 Access: Mem VA Computer: C-64 BBSSoftware: Punter
System: The Crossover Sysop: Stephen Paddon Phone: (03) 367-5816 Baud: V21 V22 V22bis V23 Computer: IBM AT BBSSoftware: QuickBBS	System: The Macro Shed Sysop: Miklos Bolvary Phone: (03) 887-1756 FIDOnet: 633/374 Baud: V22 V22bis B103 B212	System: The Ultimate 64 Sysop: Mike Kobiolke Phone: (03) 735-5551 Baud: V21 V22 V22bis V23 BBSSoftware: Punter	System: Zen BBS Sysop: Craig Bowen Phone: (03) 899-6184 Baud: V21 V22 V22bis V23 BBSSoftware: TBBS
System: The Domestic Engineer Sysop: Rob Roder Phone: (03) 720-6356 Baud: V21 V22 V22bis V23 Hours: Daily: 2130 - 0800 BBSSoftware: QuickBBS	Access: Reg VA Hours: Daily: 2100 - 0900 Computer: ELT 286 Baby AT DOS: PC DOS BBSSoftware: Opus	System: The Witche's Brew Sysop: Erika Matlen Phone: (03) 718-2198 FIDOnet: 633/370 Baud: V21 V22 V22bis V23 B103 B212 Access: Public Computer: IBM XT DOS: PC DOS BBSSoftware: QuickBBS	System: Zoist Sysop: Bob Fletcher Phone: (03) 467-7984 FIDOnet: 633/360 Baud: V21 V22 V22bis V23 Access: Mem VA BBSSoftware: QuickBBS
System Status: Offline System: The Dreamscape BBS	System: The NATIONAL CBCS Sysop: John Blackett-Smith Phone: (03) 25-6904 Baud: V22 V22bis PEP Access: Public Computer: IBM AT DOS: MS DOS BBSSoftware: Opus	System Status: Unknown System: Thongheads Welfare BBS	Prophet Bulletin Board PO Box E41, Emerton NSW 2770 Electronic: Prophet TBBS (02) 628-5222 V21.V22.V22bis.V23 FidoNet: 713/730 ic. Contact: Brainstorm OZ! (03) 758-7086 FidoNet: 632/322 zz33333.0
System: The Fruit Shop Sysop: Greg Broadley Phone: (03) 859-1246 Baud: V21 V22 V22bis V23 Access: Reg VA Hours: Weekdays: 1800 - 0900: Weekends: 24 Hours Computer: IBM XT Clone DOS: MS DOS BBSSoftware: Opus	System: The ODBS & Sensible Solution BBS Note: Now Called: The Hot-Line	System: Truth BBS Sysop: Peter Studley Phone: (03) 813-1663 Baud: V21 V22 BBSSoftware: Opus	
System: The Further Regions QuickBBS Sysop: Chris Brunton Phone: (03) 725-1923	System: The Outer Limits Sysop: Captain Kirk Phone: (03) 725-6650 Baud: V21 V22 V23 Access: Reg VA		



# Don't miss out on these great bargains!

## Australian Commodore Review Disk Mags Nos 1 to 12

<b>Disk Magazine One</b> <span style="float: right;"><b>\$10</b></span> Forest Raiders - Full machine code shoot 'em up Machine code paint, border, input and flash routines Nice Lister - for readable listings on non-Commodore printers. Recover II - for recovering deleted files, and a catalog program - for getting a disk directory without losing your program <span style="float: right;"><b>And More...</b></span>	<b>Disk Magazine Two</b> <span style="float: right;"><b>\$10</b></span> Programs demonstrating 3D graphic plots A terminal program called Teleport A tutorial on bits and bytes Character editor - for designing your own custom alphabets and graphics & A full demonstration of Electronic Card File <span style="float: right;"><b>And More...</b></span>
<b>Disk Magazine Three</b> <span style="float: right;"><b>\$10</b></span> <b>Programs:</b> Hangman, Labyrinth, Calendar, Finance, Typing Practice, Roadblock, Bird Invaders <b>Feature:</b> Constructabrix - education and graphic construction program for younger users <span style="float: right;"><b>And More...</b></span>	<b>Disk Magazine Four</b> <span style="float: right;"><b>\$10</b></span> <span style="float: right;"><b>Featuring:</b></span> Graphic Workshop _ a complete design system for sprites, graphics, and character sets - with tutorials <b>Also:</b> Typing Tutor - a complete typing program Works on errors, counts your speed <span style="float: right;"><b>And More...</b></span>
<b>Disk Magazine Five</b> <span style="float: right;"><b>\$10</b></span> Utilities for using Newsroom on an MPS 802 plus printing disk cover with directories, writing signs, printing Doodle and Printshop pictures and more all on the MPS 802! A demonstration of games in the future <span style="float: right;"><b>And More...</b></span>	<b>Disk Magazine Six :</b> <span style="float: right;"><b>\$12</b></span> <b>Games:</b> Bert the Bug <span style="float: right;"><b>Home Inventory</b></span> Hangman <span style="float: right;"><b>Graphics:</b> Light Fantastic</span> <b>Demos:</b> Amiga Pharaoh <span style="float: right;"><b>Utilities:</b></span> Space Harrier, Max Headroom 1571 Utility <span style="float: right;">DIR@828</span> The Pacer, Sade <span style="float: right;">Disk Filer <b>And More...</b></span>
<b>Disk Magazine Seven</b> <span style="float: right;"><b>\$12</b></span> <b>Utilities:</b> Anti-Isepic, Sledgehammer, Fast Format, Renum- ber, PS/PM/NR, PS Printer, Graphics Editor. <b>Other:</b> Joystick Tester, Irish Jokes, Converter, Ultimate Writer, Home Finance, Oscilloscope, Dice Roller, Chord Maker, Dark Forest, Don Martin, Funny, Music Classics. <b>Demos:</b> Karate Kid II, Thrust Concert, 3D Demo, and more. <b>For 128:</b> Bootmaker 128/64 Utility, Convert Basics utility.	<b>Disk Magazine Eight</b> <span style="float: right;"><b>\$12</b></span> <b>Utilities</b> Track and Sector, Function Keys, Unscratched, Relocatable directory, Tape Rename <b>Home/Business</b> Calendars, Chequewriter, Screen clock <b>Graphics</b> ESCOS version 2.99, Newsroom Camera, Clear Screen, Future Writer , Demos, Enterprise II, Eddie Murphy <b>Games</b> A super special for issue 8.
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<b>Disk Magazine Eleven</b> <span style="float: right;"><b>\$12.95</b></span> Education: Equation Manipulation, Linear Equations, Probability. Utilities: 80 Characters, Graphic Converter, Batch line number deleter, Function key definition, System call locator Dos utilities: Fix directory, Text search, Disk tidy, Drive aligner, Disk doctor. Hi-res jigsaw puzzle. Geos printer drivers. Demos.	<b>Disk Magazine Twelve</b> <span style="float: right;"><b>\$12.95</b></span> Appointment Manager 2.1 - now with print and search facilities. Third Term - comms program, dozens of features, menu driven. Panes - windowing system. Time Crystal - Interactive graphic demo. Atlantis - undersea fast action shoot-em-up. Circle Navigation, Education Programs, Music, and lots more

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# Adventurer's Realm

by Michael Spiteri



**H**ello, everyone! Welcome once again to the Realm, Australia's only adventure column dedicated to those who own Commodore computers.

If you are stuck in an adventure, role-playing game or war game, there is someone here to help you. In fact if you have anything to say regarding strategy games, this is the place to air out your views.

## Realm's Help Team:

**Adventure games:** Michael Spiteri and Kerrie Brady

**Role-playing games:**

Kamikaze Andy

**War games:** Barry Bolitho

**All-round assistant:**

Garryck Osbourne

The addresses to write to are:

### For Adventures & Wargames

Adventurer's Realm,  
1/10 Rhoden Court  
North Dandenong  
Victoria 3175

### For Role playing games

Adventurers Realm: The Dungeon  
44 Hawkesbury Drive  
Willeton, WA 6155

## Realm's free hint sheets

The following hint sheets are available free, just make sure you enclose a stamped addressed envelope large enough to hold the ones you want.

Zzzzzzzz, *Adventureland*, *Pirate Adventure*, *Bards Tale*, *Faery Tale*, *Borrowed Time*, *Zork 1,2,3*, *Neverending Story*, *Hitchhikers Guide*, *Hobbit*, *Lord of the Rings*, *Dracula*, *Castle of Terror*, and *The Pawn*.

## Realm via modem

There are two Bulletin Boards in Australia that provide free assistance plus other extra adventure goodies to all adventurers with a modem. The numbers to ring are:

### Down Under BBS

(02) 674 6647 (NSW)

### Terminal BBS

(09) 389 8048 (WA)

We are still looking for Bulletin Boards from other states to become part of this adventure network.

## Red Storm Rising

- a thought-provoking review of a thought-provoking game  
by Barry Bolitho

Wargames have just taken a Quantum Leap - what a dreadful expression. However, the phrase is spot on when applied to Microprose's new release, *Red Storm Rising*. Closely following the plot of Tom Clancy's best selling book of the same name, *Red Storm* is a nuclear submarine simulation set in today's world. Perhaps this is what has disturbed a few reviewers in some magazines I have read recently. World War III is just a bit too close to home for some of us. It's quite alright to zap aliens left, right and centre, and should the Galactic Federation Representatives ever arrive on Earth to sort out the alien-zappers - too bad.

I can remember not long ago when "Gunship Roared In", to coin another phrase. *Gunship* was also set in today's world and was a simulation of one of today's more efficient killing machines. By contrast, *Red Storm* is tucked away on Page Three like some poor relation. This is a bit off, as *Red Storm* is just about the best war game simulation that has ever been seen on the 64.

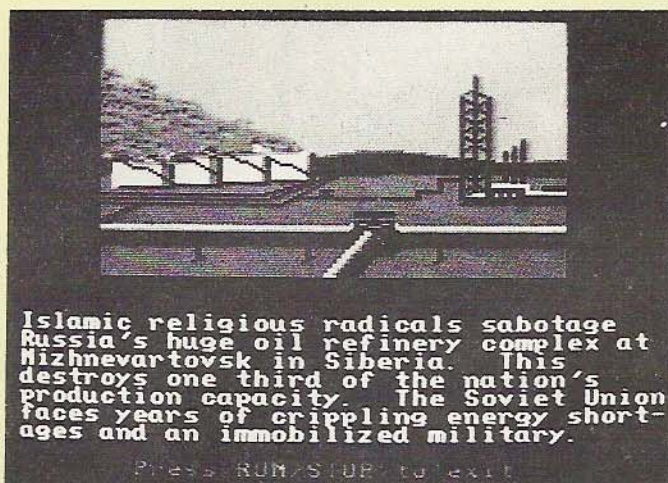
The program is packed onto two sides of disk and is accompanied by a

keyboard overlay. The 100 page manual is the usual wealth of detail and information that Microprose do so well. The plot - well, to read the book is a good way to get into what the simulation is all about. It is also a great read - don't miss it!

Each year, Nato and the Warsaw Pact conduct separate military exercises- war games! A hypothetical scenario is postulated, forces allocated and battle commenced. Larry Bond, who is a wargame designer and collaborated in the writing of *Red Storm*, is also an umpire for Nato during these exercises. The book and game follow a plot by the Soviet Union to seize the Middle East oil fields. Nato must first be neutralised and war breaks out in Europe. Nato is hard pressed - resupply and reinforcements are the key.

In World War II, the nearest we came to defeat was in the dark days of the Battle of the Atlantic. Tom Clancy believes that history will repeat itself, as history seems to keep doing. He who does not heed history lessons is doomed to repeat them? So the role player is in command of a nuclear attack submarine in the Norwegian Sea. His job is to neu-





tralise the Warsaw Pact Naval Forces so that the resupply convoys can get through to Europe. In this lies the nuts and bolts of the game. The land and air war in Europe is won or lost depending on the success or failure of the naval battles.

This is a truly interactive game in the campaign mode. The sense of realism, the feeling that this could be happening right now is urgent and heart stopping. Is this simulation in good taste? Should it be on the market? Why not? A lot of similar products are. If this simulation is disturbing to you, then don't buy it!

This reviewer feels that this particular simulation is very relevant to today's world and is a study of war that we all hope will never happen. It is a fact that both Nato and Warsaw Pact bristle with weapons and face each other across a common border.

This wargame relates to a possible future, unlike most wargames that recreate historical wars and battles from out past. We can learn a lot from both eras, and perhaps we can learn enough so that *Red Storm Rising* remains what it is - an imaginative piece of fiction and possible the best computer wargame simulation designed so far.

Rating 10 out of 10.

Published by Microprose Software, distributed by Questor, tape \$49.95, disk \$59.95.

**MS:** What do other people think about games that simulate possible future wars appearing on the computer software market? All views published.

### Realm's debate centre

The current debate concerning the effect of adult-only software on a non-restricted software market has been stirring up quite a few adventurers...

**Keith Ryan writes:**

"I believe that magazines should not review adult games, especially as many underage readers will find it easy to purchase these games. Anyway, the classic adventure games are far more interesting and varied."

**Greg Munro of Bankstown writes:**

"It's good to see you raising questions about dubious software. Magazines seem to be almost exclusively preoccupied with finding out what we CAN do with the technological marvel that is the personal computer, and generally devote very little time to asking whether or not we SHOULD do it!"

**MS:** That may be so, however some readers think this debate is giving adult software some unnecessary free publicity.

**Ross Moore writes:**

"I can't see anything wrong with those games, as long as they keep to reasonable limits, and if they go over those



limits then the age limit should be enforced. I have never played *Leather Goddesses* or *Leisure Suit Larry*, but I will have to try them out now! As you see, this debate is giving them a lot of publicity! I think the Cinemaware games are great. Flashing thighs and cleavages won't sell a game if it's no good. Word will soon get around. They have to have gameplay."

**MS:** Then there are those who think this debate is a waste of time and space.

**Andrew Hansen writes:**

"I have read letters about 14 year olds playing (gasp!) *Defender of the Crown*. I have been right through that game, and I am 14, and if I was corrupted and horrified by the scene in the bedroom before a marriage, then I shall never go near a computer again - and that is a very dangerous promise. I have read someone's letter who mentioned, in tones of awe, that a friend of his has seen and played *Leisure Suit Larry*. My 14 year old friend has an Amstrad, and we played the game a fair way in, and any parts that were even remotely offensive (!) were just laughable and a joke. If you really want adults-only software, try looking at the X-rated cartoons you can download from BBS's everywhere... they are adults-only, not *Defender of the Crown*; you are making a huge fuss over nothing."

**MS:** I think it's not the present situation that is worrying people the most, but more the direction software is taking. If nothing is done about certain software products, in a few years' time - who knows what will appear on computer screens if the market demand is strong. I may be forced to review a very offensive *Leisure Suit Larry Part 5*. Minors represent a strong percentage of the computer population - so this subject shouldn't be taken lightly. As you stated, Andrew, just take a look at all the X-rated software you can download from BBSs everywhere - just as offensive as those videos the Federal Government recently banned - so there most certainly is a problem!



# Guide to contributors

**E**VERY MONTH WE receive dozens of submissions from would be writers. For these we are most grateful. If you have considered writing for the *Australian Amiga and Commodore Review*, here's a few guidelines. The majority of contributions are accepted, however as we have a larger number to choose from these days, a few more stringent guidelines need to be met.

**Style:** Easy to read, entertaining and informative. We aim to be an enjoyable easy to read publication - with a smattering of technical articles for those so inclined. We are most interested in tutorials, "how to" type articles, and general hints and tips. Programs are also sought after for our disk magazines, Suite 64 and Amiga Live!

**Format:** Don't include any formatting such as printer controls, centred headings, print styles etc. Put a space af-

ter commas or full stops. Do not indent paragraphs. Numbers under 10 should be typed. We prefer contributions on disk - Commodore 64/128, Amiga, MS-DOS and even Macintosh. Don't double space. Just a straight ASCII text file is all we require. We also accept contributions via modem once you become a regular contributor. Baud rates of 300, 1200, 1200/75 and 2400 are supported.

**What to include:** A brief letter, if it's your first effort. Don't forget your phone number - this is the most important thing! And put your name at the top of the actual article, not just on the letter.

**What you get:** Fame and a little fortune. Writing is a lot of fun. You'll get payment of \$50 per 1000 words - paid about one or two months after publication and a free subscription to the magazine after your third article. We take

receipt of the article as permission to publish - you may not always be contacted before we use your article.

**Where to send contributions:** Post articles directly to *The Australian Commodore and Amiga Review*, 23 Bonnefin Rd, Hunters Hill. Or call (02) 817-0011 to arrange modem transfers. Don't send us your original - we cannot guarantee return, and it may become damaged in the post. Send 5 1/4 inch disks in an Australia Post cardboard Post Pak especially designed for carrying disks. Do *not* use padded post bags - these have a tendency to make the postman want to bend them in half. Amiga disks can just be sent normal mail.

That's it! For a more detailed version of the above, call our office and ask for the complete writers guide. ■

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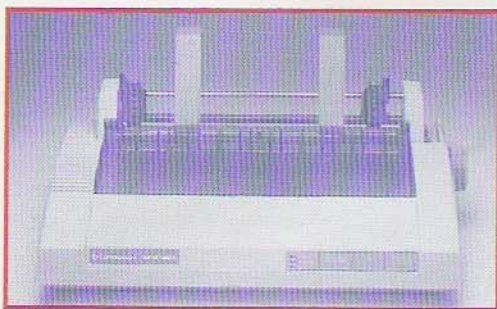
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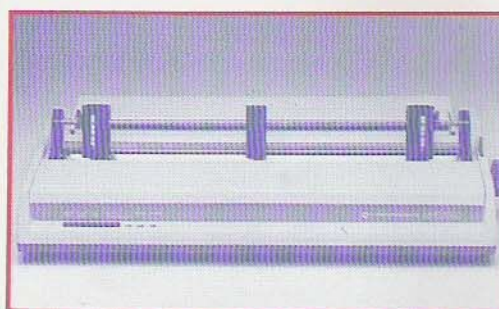
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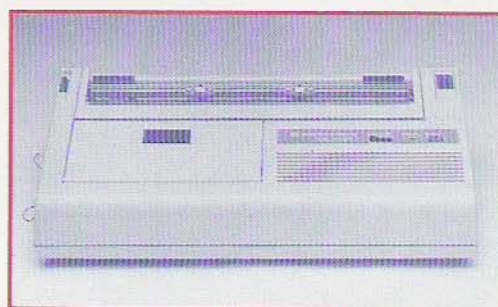
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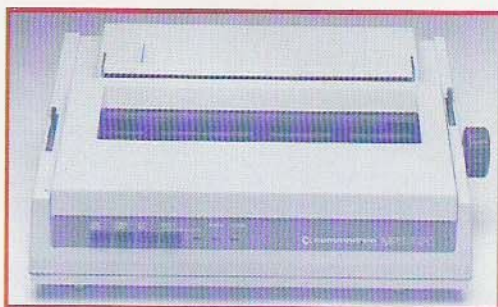
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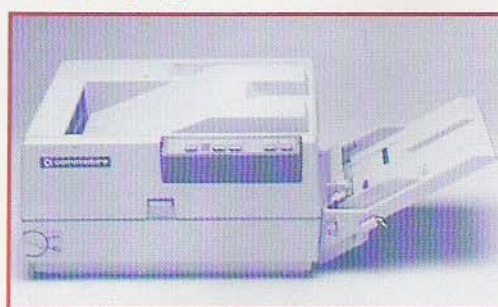
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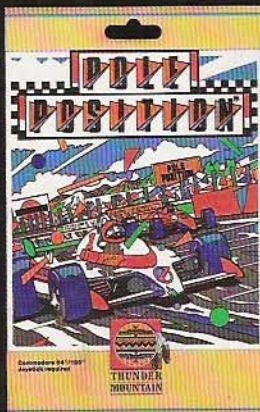
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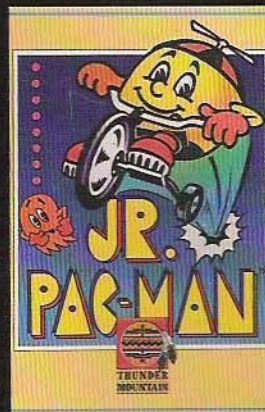
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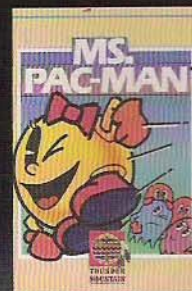
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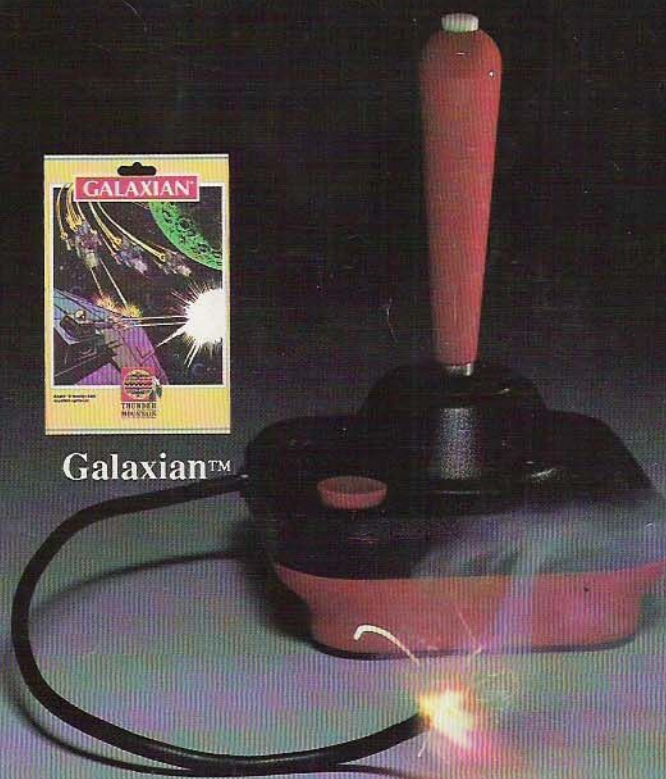
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